



IT - ITeS SSC  
**NASSCOM**



# Model Curriculum

**QP Name: WED DEVELOPER**

**QP Code: SSC/Q0503**

**QP Version: 2.0**

**NSQF Level: 4**

**Model Curriculum Version: 1.0**

IT-ITeS Sector Skills Council NASSCOM | Plot No – 7,8,9 & 10, Sector 126, Noida, UP.  
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## Training Parameters

|   |  |
|---|--|
| <b>Sector</b>   | IT-ITeS  |
| <b>Sub-Sector</b>                                       | IT Services  |
| <b>Occupation</b>                                       | Application Development  |
| <b>Country</b>  | India  |
| <b>NSQF Level</b>                                       | 4  |
| <b>Aligned to NCO/ISCO/ISIC Code</b>                    | NCO-2015/ 2513.0101  |
| <b>Minimum Educational Qualification and Experience</b> | Graduate (design/ media design or any other related field) with 1 year of relevant experience<br>OR<br>12th Class (Commerce) with 4 years of relevant experience |
| <b>Pre-Requisite License or Training</b>                | Relevant animation and graphics courses/<br>Certifications/training  |
| <b>Minimum Job Entry Age</b>                            | 18 Years   |
| <b>Last Reviewed On</b>                                 | 13-09-2021   |
| <b>Next Review Date</b>                                 | 13-09-2024   |
| <b>NSQC Approval Date</b>                               | 27-01-2022   |
| <b>QP Version</b>                                       | 2.0  |
| <b>Model Curriculum Creation Date</b>                   | 13-09-2021   |
| <b>Model Curriculum Valid Up to Date</b>                | 13-09-2024   |
| <b>Model Curriculum Version</b>                         | 1.0  |
| <b>Minimum Duration of the Course</b>                   | 400 hours  |
| <b>Maximum Duration of the Course</b>                   | 400 hours  |

## Program Overview

This section summarizes the end objectives of the program along with its duration.

### Training Outcomes

At the end of the program, the learner should have acquired the listed knowledge and skills.

- Evaluate the functioning of Business Requirement Specification, User Requirements Specification, Software Requirements Specification and Low-Level Design in the web development domain.
- Examine how assumptions, constraints, interfaces determine the process of web designing.
- Collate basic programming structures related to High Level design/Low Level Design and monitor the same.
- Examine how to create software code that is efficient, readable, and maintainable.
- Evaluate the process for converting designs into media and graphic content.



- Examine how to test new products and applications.
- Illustrate the various forms of coding tools required for software applications and web designs.
- Convert requirements into web content and graphic designs, leveraging reusable components.
- Discuss the technical validation of a web's HTML implementation.
- Demonstrate effective communication and collaboration with colleagues.
- Apply measures to maintain standards of health and safety at the workplace.
- Use different approaches to effectively manage and share data and information.
- Develop strong relationships at the workplace through effective communication and conflict management.
- Identify best practices to maintain an inclusive, environmentally sustainable workplace.

## Compulsory Modules

The table lists the modules and their duration corresponding to the Compulsory NOS of the QP.

| NOS and Module Details   | Theory Duration (In Hours) | Practical Duration (In Hours) | On-the-Job Training Duration (Mandatory) | On-the-Job Training Duration (Recommended) | Total Duration (In Hours) |
|--|----------------------------|-------------------------------|--|--|---------------------------|
| <i>Module 1 (Bridge Module):</i><br>IT-ITeS/Application development industry – An Introduction   | 02:00                      | 02:00                         | 00:00                                    | 00:00                                      | 04:00                     |
| <b>SSC/N0501 Contribute to the design of software products and applications</b><br><b>NOS Version No. 2</b><br><b>NSQF Level 5</b>                   | 31:00                      | 80:00                         | 00:00                                    | 00:00                                      | 111:00                    |
| Module 2: Programming for the Web  | 11:00                      | 30:00                         | 00:00                                    | 00:00                                      | 41:00                     |
| Module 3: Contribute to the design of software products and applications   | 15:00                      | 30:00                         | 00:00                                    | 00:00                                      | 45:00                     |
| Module 4: Technical skills for software design   | 05:00                      | 20:00                         | 00:00                                    | 00:00                                      | 25:00                     |
| <b>SSC/N0503 Develop media content and graphic designs for software products and applications</b><br><b>NOS Version No. 2</b><br><b>NSQF Level 5</b> | 36:00                      | 84:00                         | 00:00                                    | 00:00                                      | 120:00                    |
| Module 5: Analysis and design of web-based applications  | 11:00                      | 29:00                         | 00:00                                    | 00:00                                      | 40:00                     |
| Module 6: Develop media content and graphic designs for software products and applications   | 15:00                      | 30:00                         | 00:00                                    | 00:00                                      | 45:00                     |



|  |               |               |              |              |               |
|--|---------------|---------------|--------------|--------------|---------------|
| Module 7: Interpret design specification   | 10:00         | 25:00         | 00:00        | 00:00        | 35:00         |
| <b>SSC/N9001 Manage your work to meet requirements<br/>NOS Version No. 2<br/>NSQF Level 5</b>  | 08:00         | 32:00         | 00:00        | 00:00        | 40:00         |
| Module 8: Manage your work to meet requirements  | 08:00         | 32:00         | 00:00        | 00:00        | 40:00         |
| <b>SSC/N9002 Work effectively with colleagues<br/>NOS Version No. 2<br/>NSQF Level 5</b>   | 08:00         | 32:00         | 00:00        | 00:00        | 40:00         |
| Module 9: Work effectively with colleagues   | 08:00         | 32:00         | 00:00        | 00:00        | 40:00         |
| <b>SSC/N9003 Maintain a healthy, safe, and secure working environment<br/>NOS Version No. 2<br/>NSQF Level 5</b>   | 05:00         | 25:00         | 00:00        | 00:00        | 30:00         |
| Module 10: Managing Health and Safety  | 05:00         | 25:00         | 00:00        | 00:00        | 30:00         |
| <b>SSC/N9004 Provide data/information in standard formats<br/>NOS Version No. 2<br/>NSQF Level 5</b>   | 05:00         | 25:00         | 00:00        | 00:00        | 30:00         |
| Module 11: Workplace Data Management   | 05:00         | 25:00         | 00:00        | 00:00        | 30:00         |
| <b>SSC/N9014 Implement &amp; Improve the Gender Sensitivity, PWD (Person/People with Disability) Sensitivity and Greening<br/>NOS Version No. 1<br/>NSQF Level 5</b> | 05:00         | 20:00         | 00:00        | 00:00        | 25:00         |
| Module 12: Inclusive and environmentally sustainable workplaces  | 05:00         | 20:00         | 00:00        | 00:00        | 25:00         |
| <b>Total Duration</b>  | <b>100:00</b> | <b>300:00</b> | <b>00:00</b> | <b>00:00</b> | <b>400:00</b> |



# Module Details

## Module 1: IT-ITeS/Application Development Industry – An Introduction

### Bridge Module

#### Terminal Outcomes:

- Comprehend various delivery models used in the IT-Application development industry.
- Examine the current growth and development standards of web development application.

| <b>Duration:</b> 02:00(In Hours)   | <b>Duration:</b> 02:00(In Hours)   |
|--|--|
| <b>Theory – Key Learning Outcomes</b>  | <b>Practical – Key Learning Outcomes</b>   |
| <ul style="list-style-type: none"> <li>• Discuss the relevance of the IT-ITeS sector.</li> <li>• Identify the career path for a web developer.</li> <li>• List the various sub-sectors of the Application development industry.</li> </ul> | <ul style="list-style-type: none"> <li>• Conduct internet surfing to gather information, evidence, and articles regarding the IT-ITeS/Application Development industry.</li> <li>• Evaluate the key emerging trends in the Application Development industry basis information gathered.</li> </ul> |
| <b>Classroom Aids:</b>   |  |
| Whiteboard and Markers<br>Chart paper and sketch pens<br>LCD Projector and Laptop for presentations  |  |
| <b>Tools, Equipment and Other Requirements:</b>  |  |
| Labs equipped with the following:<br>PCs/Laptops<br>Internet with Wi-Fi (Min 2 Mbps Dedicated)   |  |

## Module 2: Programming for the Web

Mapped to SSC/N0501, v2.0

### Terminal Outcomes:

- Evaluate the functioning of Business Requirement Specification, User Requirements Specification, Software Requirements Specification and Low-Level Design in the web development domain.
- Examine how assumptions, constraints, interfaces determine the process of web designing.

| Duration: 11:00(In Hours)   | Duration: 30:00(In Hours)  |
|---|--|
| <b>Theory – Key Learning Outcomes</b>   | <b>Practical – Key Learning Outcomes</b>   |
| <ul style="list-style-type: none"> <li>• Evaluate the use of the Business Requirements Specification (BRS)/User Requirements Specification (URS).</li> <li>• Identify the Software Requirements Specification (SRS).</li> </ul>   | <ul style="list-style-type: none"> <li>• Examine the software requirements for carrying out web development process.</li> <li>• Evaluate the process of HLD (High Level Design) application for web programming.</li> <li>• Elaborate the application of LLD (Low Level Design) to create a web program.</li> <li>• Design basic programming structures to implement functionality in line with requirements defined in BRS/URS, SRS, and HLD.</li> <li>• Examine how assumptions, constraints, interfaces determine the process and build-up for web design.</li> </ul> |
| <b>Classroom Aids:</b>  |  |
| Whiteboard and Markers<br>Chart paper and sketch pens<br>LCD Projector and Laptop for presentations   |  |
| <b>Tools, Equipment and Other Requirements:</b>   |  |
| Labs equipped with the following:<br>PCs/Laptops<br>Internet with Wi-Fi (Min 2 Mbps Dedicated)<br>Microphone / voice system for lecture and class activities<br>Computer Lab with 1:1 PC: trainee ratio and having internet connection, MS Office / Open office, Browser, Outlook / Any other Email Client, and chat tools<br>HTML5, Javascript, CSS, SQL, Web Builder, Word Press, Joomla and modelling tools such as Visio, UML |  |

### Module 3: Contribute to the Design of Software Products and Applications

Mapped to SSC/N0501, v2.0

#### Terminal Outcomes:

- Collate basic programming structures related to High Level design/Low Level Design and monitor the same.
- Examine how to create software code that is efficient, readable, and maintainable.

| <b>Duration: 15:00(In Hours)</b>  | <b>Duration: 30:00(In Hours)</b>   |
|---|--|
| <b>Theory – Key Learning Outcomes</b>   | <b>Practical – Key Learning Outcomes</b>   |
| <ul style="list-style-type: none"> <li>• Collate inputs from design experts to identify, resolve and record design defects.</li> <li>• Discuss conclusions from defects for improving future designs.</li> <li>• Discuss how to use various ranges of coding tools.</li> </ul>  | <ul style="list-style-type: none"> <li>• Interpret design specifications, pertaining to Business Requirements Specification (BRS), User Requirements Specification (URS), Software Requirements Specification (SRS), etc.</li> <li>• Create proper documentation of the designs using standard templates and tools.</li> <li>• Review the designs of programming structures with experts.</li> </ul> |
| <b>Classroom Aids:</b>  |  |
| Whiteboard and Markers<br>Chart paper and sketch pens<br>LCD Projector and Laptop for presentations   |  |
| <b>Tools, Equipment and Other Requirements:</b>   |  |
| Labs equipped with the following:<br>PCs/Laptops<br>Internet with Wi-Fi (Min 2 Mbps Dedicated)<br>Microphone / voice system for lecture and class activities<br>Computer Lab with 1:1 PC: trainee ratio and having internet connection, MS Office / Open office, Browser, Outlook / Any other Email Client, and chat tools<br>HTML5, Javascript, CSS, SQL, Web Builder, Word Press, Joomla and modelling tools such as Visio, UML |  |

## Module 4: Technical Skills for Software Design

Mapped to SSC/N0501, v2.0

### Terminal Outcomes:

- Utilize the codes constructed to meet technical specifications.
- Practice hands-on experience on various software for designing.

| Duration: 05:00(In Hours)   | Duration: 20:00(In Hours)   |
|---|---|
| <b>Theory – Key Learning Outcomes</b>   | <b>Practical – Key Learning Outcomes</b>  |
| <ul style="list-style-type: none"> <li>• List the functional and non-functional requirements in software application for web development.</li> <li>• Discuss the current practice in the design of software products.</li> </ul>  | <ul style="list-style-type: none"> <li>• Demonstrate skills to run various software including JavaScript, WordPress, SQL, Web Builder, Photoshop, etc.</li> </ul> |
| <b>Classroom Aids:</b>  |   |
| Whiteboard and Markers<br>Chart paper and sketch pens<br>LCD Projector and Laptop for presentations   |   |
| <b>Tools, Equipment and Other Requirements:</b>   |   |
| Labs equipped with the following:<br>PCs/Laptops<br>Internet with Wi-Fi (Min 2 Mbps Dedicated)<br>Microphone / voice system for lecture and class activities<br>Computer Lab with 1:1 PC: trainee ratio and having internet connection, MS Office / Open office, Browser, Outlook / Any other Email Client, and chat tools<br>HTML5, Javascript, CSS, SQL, Web Builder, Word Press, Joomla and modelling tools such as Visio, UML |   |

## Module 5: Analysis and Design of Web Based Applications

Mapped to SSC/N0503, v2.0

### Terminal Outcomes:

- Evaluate the process for converting designs into media and graphic content.
- Examine how to test new products and applications.

| Duration: 11:00(In Hours)  | Duration: 29:00(In Hours)   |
|--|---|
| <b>Theory – Key Learning Outcomes</b>  | <b>Practical – Key Learning Outcomes</b>  |
| <ul style="list-style-type: none"> <li>• Discuss the implications that new products and applications may have on business processes.</li> <li>• Identify the sources of information to design software products and specifications.</li> <li>• List range of equipment used to design software products and applications.</li> </ul>   | <ul style="list-style-type: none"> <li>• Utilize basic program structures to design suitable software applications.</li> <li>• Determine how to test new products and applications to determine if they are fit for design purpose.</li> <li>• Evaluate common design defects and their resolution.</li> <li>• Examine functional and non-functional requirement for web-based applications.</li> </ul> |
| <b>Classroom Aids:</b>   |   |
| Whiteboard and Markers<br>Chart paper and sketch pens<br>LCD Projector and Laptop for presentations  |   |
| <b>Tools, Equipment and Other Requirements:</b>  |   |
| Labs equipped with the following:<br>PCs/Laptops<br>Internet with Wi-Fi (Min 2 Mbps Dedicated)<br>Microphone / voice system for lecture and class activities<br>Computer Lab with 1:1 PC: trainee ratio and having internet connection, MS Office / Open office, Browser, Outlook / Any other Email Client, and chat tools<br>HTML5, CSS, Flash, Photoshop, Windows media player, Eclipse, XAMPP |   |

## Module 6: Develop Media Content and Graphic Designs for Software Products and Application

Mapped to SSC/N0503, v2.0

### Terminal Outcomes:

- Illustrate the various forms of coding tools required for software applications and web designs.
- Convert requirements into web content and graphic designs, leveraging reusable components.

| <b>Duration: 15:00(In Hours)</b>  | <b>Duration: 30:00(In Hours)</b>  |
|---|---|
| <b>Theory – Key Learning Outcomes</b>   | <b>Practical – Key Learning Outcomes</b>  |
| <ul style="list-style-type: none"> <li>• Select reusable components, media and graphical packages and tools to develop media content.</li> <li>• Identify any defects and corrective actions taken to improve media and graphics.</li> </ul>  | <ul style="list-style-type: none"> <li>• Convert requirements into web content and graphic designs, leveraging reusable components.</li> <li>• Validate web content and graphic designs created.</li> <li>• Examine whether components are suitable for re-use before final corrections.</li> <li>• Review the final design before final software product application.</li> </ul> |
| <b>Classroom Aids:</b>  |   |
| Whiteboard and Markers<br>Chart paper and sketch pens<br>LCD Projector and Laptop for presentations   |   |
| <b>Tools, Equipment and Other Requirements:</b>   |   |
| Labs equipped with the following:<br>PCs/Laptops<br>Internet with Wi-Fi (Min 2 Mbps Dedicated)<br>Microphone / voice system for lecture and class activities<br>Computer Lab with 1:1 PC: trainee ratio and having internet connection, MS Office / Open office, Browser, Outlook / Any other Email Client, and chat tools<br>HTML5, CSS, Flash, Photoshop, Windows media player, Eclipse, XAMPP. |   |

## Module 7: Interpret Design Specification

Mapped to SSC/N0503, v2.0

### Terminal Outcomes:

- Check the technical implementation of the web design with validation tools.
- Discuss the technical validation of a web's HTML implementation.

| <b>Duration: 10:00(In Hours)</b>  | <b>Duration: 25:00(In Hours)</b>  |
|---|---|
| <b>Theory – Key Learning Outcomes</b>   | <b>Practical – Key Learning Outcomes</b>  |
| <ul style="list-style-type: none"> <li>• Identify the current practice in developing media content and graphic designs.</li> <li>• Discuss the technical validation of a web's HTML implementation.</li> </ul>  | <ul style="list-style-type: none"> <li>• Examine conversion process of media content and graphic designs using HLD and LLD application.</li> <li>• Test media content and graphic designs to validate their purpose in the configuration system.</li> <li>• Rework media content and graphic designs, to incorporate feedback.</li> </ul> |
| <b>Classroom Aids:</b>  |   |
| Whiteboard and Markers<br>Chart paper and sketch pens<br>LCD Projector and Laptop for presentations   |   |
| <b>Tools, Equipment and Other Requirements:</b>   |   |
| Labs equipped with the following:<br>PCs/Laptops<br>Internet with Wi-Fi (Min 2 Mbps Dedicated)<br>Microphone / voice system for lecture and class activities<br>Computer Lab with 1:1 PC: trainee ratio and having internet connection, MS Office / Open office, Browser, Outlook / Any other Email Client, and chat tools<br>HTML5, CSS, Flash, Photoshop, Windows media player, Eclipse, XAMPP. |   |

## Module 8: Manage your Work to meet Requirements

Mapped to SSC/N9001, v2.0

### Terminal Outcomes:

- Define the scope of work.
- Demonstrate effective work planning principles.
- Recognize the importance of using time and resources effectively.

| <b>Duration: 08:00(In Hours)</b>  | <b>Duration: 32:00(In Hours)</b>  |
|---|---|
| <b>Theory – Key Learning Outcomes</b>   | <b>Practical – Key Learning Outcomes</b>  |
| <ul style="list-style-type: none"> <li>• Discuss the role, responsibilities, and limits of the responsibilities.</li> <li>• Discuss the importance of gathering detailed work requirements and prioritizing work areas.</li> <li>• Identify commonly made mistakes in the prioritized work areas.</li> <li>• Explain the importance of completing work accurately.</li> </ul> | <ul style="list-style-type: none"> <li>• Analyse needs, requirements, and dependencies to meet the work requirements.</li> <li>• Apply resource management principles and techniques.</li> <li>• Demonstrate the ways to maintain an organized work area.</li> <li>• Apply effective time management principles.</li> </ul> |
| <b>Classroom Aids:</b>  |   |
| Whiteboard and Markers<br>Chart paper and sketch pens<br>LCD Projector and Laptop for presentations   |   |
| <b>Tools and Other Requirements:</b>  |   |
| Labs equipped with the following:<br>PCs/Laptops<br>Internet with Wi-Fi (Min 2 Mbps Dedicated)<br>Microphone / voice system for lecture and class activities<br>Computer Lab with 1:1 PC: trainee ratio and having internet connection, MS Office / Open office, Browser, Outlook / Any other Email Client, and chat tools  |   |

## Module 9: Work Effectively with Colleagues

Mapped to SSC/N9002, v2.0

### Terminal Outcomes:

- Explain the methods and mechanisms for effective communication.
- Explain the importance of effective collaboration at workplace.

| Duration: 08:00(In Hours)  | Duration: 32:00(In Hours)  |
|--|--|
| <b>Theory – Key Learning Outcomes</b> <ul style="list-style-type: none"> <li>• Explain the principles of clear communication.</li> <li>• Outline the importance of being a good listener and adhering to the commitments.</li> <li>• Identify challenges and pain points related to work distribution while working in a team.</li> <li>• Explain the importance of distributing and sharing workloads.</li> </ul>   | <b>Practical – Key Learning Outcomes</b> <ul style="list-style-type: none"> <li>• Use oral, written, and non-verbal communication skills in a variety of forms to construct thoughts and ideas effectively.</li> <li>• Demonstrate professional behaviour at workplace.</li> <li>• Demonstrate effective team mentorship.</li> </ul> |
| <b>Classroom Aids:</b><br>Whiteboard and Markers<br>Chart paper and sketch pens<br>LCD Projector and Laptop for presentations  |  |
| <b>Tools and Other Requirements:</b><br>Labs equipped with the following:<br>PCs/Laptops<br>Internet with Wi-Fi (Min 2 Mbps Dedicated)<br>Microphone / voice system for lecture and class activities<br>Computer Lab with 1:1 PC: trainee ratio and having internet connection, MS Office / Open office, Browser, Outlook / Any other Email Client, and chat tools<br>Social networking tool / LMS tool to enable blog posts or discussion board, Instant messenger, chat, and email tools to enable mock exercises. |  |

## Module 10: Managing Health and Safety

Mapped to SSC/N9003, v2.0

### Terminal Outcomes:

- Describe how to maintain a health, safe and secure environment at workplace.

| <b>Duration:</b> 05:00(In Hours)   | <b>Duration:</b> 25:00(In Hours)  |
|--|---|
| <p><b>Theory – Key Learning Outcomes</b></p> <ul style="list-style-type: none"> <li>Discuss the importance of complying with organizational health, safety and security policies and procedures.</li> <li>Discuss possible roles and responsibilities that an employee can take up with respect to workplace safety management.</li> <li>Evaluate sample organizational emergency procedures.</li> <li>Identify mechanisms to improve workplace health, safety, and security.</li> <li>Label appropriate personal protective equipment needed for a job role.</li> </ul> | <p><b>Practical – Key Learning Outcomes</b></p> <ul style="list-style-type: none"> <li>Demonstrate the identification of possible breaches in health, safety, and security policies.</li> <li>Document health, safety, and security breaches.</li> <li>Design a contingency plan for emergency situations like fire, short circuit, accidents, earthquake, etc.</li> <li>Demonstrate the use of First Aid, CPR, and safety evacuation process as part of routine operations.</li> </ul> |
| <p><b>Classroom Aids:</b></p> <p>Whiteboard and Markers<br/>Chart paper and sketch pens<br/>LCD Projector and Laptop for presentations</p>   |   |
| <p><b>Tools and Other Requirements:</b></p> <p>Labs equipped with the following:<br/>PCs/Laptops<br/>Internet with Wi-Fi (Min 2 Mbps Dedicated)<br/>Microphone / voice system for lecture and class activities<br/>Computer Lab with 1:1 PC: trainee ratio and having internet connection, MS Office / Open office, Browser, Outlook / Any other Email Client, and chat tools<br/>A sample health and safety policy document, Emergency broadcast system and mock emergency signage in the appropriate areas of the training institute</p>                               |   |

## Module 11: Workplace Data Management

Mapped to SSC/N9004, v2.0

### Terminal Outcomes:

- Describe how data / information can be managed effectively.

| <b>Duration: 05:00(In Hours)</b>  | <b>Duration: 25:00(In Hours)</b>  |
|---|---|
| <b>Theory – Key Learning Outcomes</b>   | <b>Practical – Key Learning Outcomes</b>  |
| <ul style="list-style-type: none"> <li>Discuss data privacy in terms of sharing and retrieving data from different sources.</li> <li>Discuss the significance of providing accurate and up-to-date information on time.</li> <li>Identify the database management tools and importance of CRM database.</li> </ul>  | <ul style="list-style-type: none"> <li>Apply the concepts behind information and knowledge management.</li> <li>Perform rule-based analysis of data/information.</li> <li>Format the data/information into required types/forms.</li> <li>Demonstrate effective data management.</li> <li>Use CRM databases to record and extract information.</li> </ul> |
| <b>Classroom Aids:</b>  |   |
| Whiteboard and Markers<br>Chart paper and sketch pens<br>LCD Projector and Laptop for presentations   |   |
| <b>Tools and Other Requirements:</b>  |   |
| Labs equipped with the following:<br>PCs/Laptops<br>Internet with Wi-Fi (Min 2 Mbps Dedicated)<br>Microphone / voice system for lecture and class activities<br>Computer Lab with 1:1 PC: trainee ratio and having internet connection, MS Office / Open office, Browser, Outlook / Any other Email Client, and chat tools<br>Social networking tool / LMS tool to enable blog posts or discussion board, Instant messenger, chat and email tools to enable mock exercises. |   |

## Module 12: Inclusive and environmentally sustainable workplaces

Mapped to SSC/N9014, v2.0

### Terminal Outcomes:

- Illustrate sustainable practices at workplace for energy efficiency and waste management.
- Apply different approaches to maintain gender equality and increase inclusiveness for PwD.

| <b>Duration: 05:00(In Hours)</b>  | <b>Duration: 20:00(In Hours)</b>   |
|---|--|
| <b>Theory – Key Learning Outcomes</b>   | <b>Practical – Key Learning Outcomes</b>   |
| <ul style="list-style-type: none"> <li>• Describe different approaches for efficient energy resource utilisation and waste management.</li> <li>• Describe the importance of following the diversity policies.</li> <li>• Identify stereotypes and prejudices associated with people with disabilities and the negative consequences of prejudice and stereotypes.</li> <li>• Discuss the importance of promoting, sharing, and implementing gender equality and PwD sensitivity guidelines at organization level.</li> </ul> | <ul style="list-style-type: none"> <li>• Practice the segregation of recyclable, non-recyclable and hazardous waste generated.</li> <li>• Demonstrate different methods of energy resource use optimization and conservation.</li> <li>• Demonstrate essential communication methods in line with gender inclusiveness and PwD sensitivity.</li> </ul> |
| <b>Classroom Aids:</b>  |  |
| Whiteboard and Markers<br>Chart paper and sketch pens<br>LCD Projector and Laptop for presentations   |  |
| <b>Tools and Other Requirements:</b>  |  |
| Labs equipped with the following:<br>PCs/Laptops<br>Internet with Wi-Fi (Min 2 Mbps Dedicated)<br>Microphone / voice system for lecture and class activities  |  |

## Annexure

### Trainer Requirements

| Trainer Prerequisites  |  |   |                |                     |   |   |
|--|--|---|----------------|---------------------|---|---|
| Minimum Educational Qualification  | Specialization   | Relevant Industry Experience                              |                | Training Experience |   | Remarks   |
|  |  | Years   | Specialization | Years               | Specialization  |   |
| Minimum Graduate degree/ diploma in web design/ media design or any other related field. | Preferred Master's Degree in Media Design.<br>OR<br>CITS + 3 years domain experience required. | Minimum 2 years' experience in the Web Development domain |                | 1 year preferred    | Minimum 2 years' experience in the Web Development domain | Certification in relevant software competencies: Software Development Certifications in C++, Embedded, C#, C, Java etc., is an added advantage. |

| Trainer Certification  |   |
|--|---|
| Domain Certification   | Platform Certification  |
| Minimum accepted score in SSC Assessment is 80% per NOS being taught in "SSC/Q0503, V 2.0" | Recommended that the trainer is certified for the Job role "Trainer" mapped to the Qualification Pack "MEP/Q2601".<br><br>Minimum accepted score is 80% aggregate |

## Assessor Requirements

| Assessor Prerequisites            |                |                              |   |                                |   |         |
|-----------------------------------|----------------|------------------------------|---|--------------------------------|---|---------|
| Minimum Educational Qualification | Specialization | Relevant Industry Experience |   | Training/Assessment Experience |   | Remarks |
|                                   |                | Years                        | Specialization                              | Years                          | Specialization                              |         |
| Graduate in any discipline        |                | 2                            | Experience that involves client interaction | 1-2                            | Experience that involves client interaction |         |

| Assessor Certification |                        |
|------------------------|------------------------|
| Domain Certification   | Platform Certification |
| Not Applicable         |                        |

## Assessment Strategy

This section includes the processes involved in identifying, gathering, and interpreting information to evaluate the learner on the required competencies of the program.

### Assessment System Overview

A uniform assessment of job candidates as per industry standards facilitates progress of the industry by filtering employable individuals while simultaneously providing candidates with an analysis of personal strengths and weaknesses.

### Assessment Criteria

Criteria for assessment for each Qualification Pack will be created by the Sector Skill Council. Each Performance Criteria (PC) will be assigned marks proportional to its importance in NOS. SSC will also lay down the proportion of marks for Theory and Skills Practical for each PC.

The assessment for the theory part will be based on a knowledge bank of questions created by the SSC. Assessment will be conducted for all compulsory NOS, and where applicable, on the selected elective/option NOS/set of NOS.

| Guidelines for Assessment  |  |   |   |
|--|--|---|---|
| Testing Environment  | Tasks and Functions  | Productivity  | Teamwork  |
| <ul style="list-style-type: none"> <li>Carry out assessments under realistic work pressures that are found in the normal industry workplace (or simulated workplace).</li> <li>Ensure that the range of materials, equipment, and tools that learners use are current and of the type routinely found in the normal industry workplace (or simulated workplace) environments.</li> </ul> | <ul style="list-style-type: none"> <li>Assess that all tasks and functions are completed in a way, and to a timescale, that is acceptable in the normal industry workplace.</li> <li>Assign workplace (or simulated workplace) responsibilities that enable learners to meet the requirements of the NOS.</li> </ul> | <ul style="list-style-type: none"> <li>Productivity levels must be checked to ensure that it reflects those that are found in the work situation being replicated.</li> </ul> | <ul style="list-style-type: none"> <li>Provide situations that allow learners to interact with the range of personnel and contractors found in the normal industry workplace (or simulated workplace).</li> </ul> |

## **Assessment Quality Assurance framework**

NASSCOM provides two assessment frameworks NAC and NAC-Tech.

### **NAC (NASSCOM Assessment of Competence)**

NAC follows a test matrix to assess Speaking & Listening, Analytical, Quantitative, Writing, and Keyboard skills of candidates appearing for assessment.

### **NAC-Tech**

NAC-Tech test matrix includes assessment of Communication, Reading, Analytical, Logical Reasoning, Work Management, Computer Fundamentals, Operating Systems, RDBMS, SDLC, Algorithms & Programming Fundamentals, and System Architecture skills.

### **Methods of Validation**

To pass a QP, a trainee should score an average of 70% across generic NOS' and a minimum of 70% for each technical NOS. In case of unsuccessful completion, the trainee may seek reassessment on the Qualification Pack.

### **Method of assessment documentation and access**

The assessment agency will upload the result of assessment in the portal. The data will not be accessible for change by the assessment agency after the upload. The assessment data will be validated by SSC assessment team. After upload, only SSC can access this data.

## References

### Glossary

| Term                                      | Description  |
|---|--|
| <b>Key Learning Outcome</b>               | Key learning outcome is the statement of what a learner needs to know, understand and be able to do to achieve the terminal outcomes. A set of key learning outcomes will make up the training outcomes. Training outcome is specified in terms of knowledge, understanding (theory) and skills (practical application). |
| <b>Training Outcome</b>                   | Training outcome is a statement of what a learner will know, understand and be able to do <b>upon the completion of the training</b> .   |
| <b>Terminal Outcome</b>                   | Terminal outcome is a statement of what a learner will know, understand and be able to do <b>upon the completion of a module</b> . A set of terminal outcomes help to achieve the training outcome.  |
| <b>National Occupational Standard</b>     | National Occupational Standard specify the standard of performance an individual must achieve when carrying out a function in the workplace  |
| <b>Persons With Disability</b>            | Persons with Disability are those who have long-term physical, mental, intellectual, or sensory impairments which in interaction with various barriers may hinder their full and effective participation in society on an equal basis with others.   |
| <b>Integrated Development Environment</b> | An integrated development environment is a software application that provides comprehensive facilities to computer programmers for software development.   |



## Acronyms and Abbreviations

| Term    | Description  |
|---------|--|
| QP      | Qualification Pack                                   |
| NSQF    | National Skills Qualification Framework              |
| NSQC    | National Skills Qualification Committee              |
| NOS     | National Occupational Standards                      |
| SSC     | Skill Sectors Councils                               |
| NASSCOM | National Association of Software & Service Companies |
| PwD     | Persons with Disability                              |
| IDE     | Integrated Development Environment                   |