**COMPETENCY BASED STANDARD**

**INFORMATION AND COMMUNICATIONS**

**TECHNOLOGY SECTOR**



**GRAPHIC AND MULTIMEDIA DESIGNER**

**Job Title**

**ISCO 2166**

**Second Strengthening Technical and Vocational Education and Training (SSTVET) Project**

**ADB Grant 0503-LAO**

**CERTIFICATE LEVEL 3 | DRAFT VERSION 1 | MARCH 2018**

**LAO PDR**

##### Occupation Area: Information Communications Technology

**2166**

**Job Title: GRAPHIC AND MULTMEDIA DESIGNERS**

**Competency Standard: ICT Certification Level 3**

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# Foreword

# Foreword

The 1991 Constitution of the Lao People’s Democratic Republic (Revised 2003), in Article 22 of the Lao PDR Constitution states: “The State attends to developing education and implements compulsory primary education in order to build good citizens with revolutionary competence, knowledge and abilities.” In addition, “The State and society attend to developing high quality national education, to create opportunities and [favorable] conditions in education for all people throughout the country, especially people in remote areas, ethnic groups, women and disadvantaged children.”

## In Article 27 of the Lao PDR Constitution state: “The State and society attend to developing skilled labor, upgrading labor discipline, promoting vocational skills and occupations and protecting the legitimate rights and benefits of workers.”

## Education for All 2015 National Review, The Technical and Vocational Education and Training (TVET) is clearly specified as one of the four sub‐sectors of the education system in the revised version of the Education Law of Lao PDR promulgated in July 2007. The TVET is divided into three levels: primary or first level (at upper secondary level), middle level and high level (at post‐secondary level. Thus TVET belongs partly to upper secondary education and partly to post‐secondary education, which is formally part of higher education according to the definitions.

## The government of Lao PDR recognizes education’s importance in achieving national development goals. The country relies heavily on external funding, however, it has shown improvements in recent years. According to government figures, in 2013/14, the education share of the government budget was 15.5%, up from 13.4% in 2009/10.

## The country has made significant progress, achieving 98.6% primary net enrollment and a gender parity rate of .99 for primary education. The major challenges that the education system faces are: reducing the high grade 1 dropout rate, enhancing equity, and improving learning outcomes. https://www.globalpartnership.org... Less than 10 percent of schools are connected to the Internet across many developing countries.

## Tracer study on 3,000 TVET graduates from 2007-2012 carried out by the World Bank in 2013 reported that most of the graduates work in the public sector. 30% of graduates, who were working secured a job before graduation. 45% of those who were working studied Business Administration. It shows that the profile of graduates from TVET does not correspond with the needs of the economy (VERLA, EMCS).

## In Laos, 22% of the labor force (15-64 years old) has upper secondary and tertiary level of education, the education level of the remaining part is below secondary. According to data from 2011, in comparison to other ASEAN (+6) countries, Laos had the lowest enrolment rate in upper secondary TVET with 1, 1% (China with 42, 6% had the highest rate, followed by Thailand at 39, 9%). On the other hand, Laos contributed the highest share of tertiary enrolment with 61 % followed by China (45%) and Malaysia (43%). Global Standards in TVET is used as reference.

## 

## With reference to the Technical and Vocational Education and Training Development Plan 2016-2020 on “Education Law of the Lao PDR ref No. 04/NA dated July 3rd 2007 and the “Technical and Vocational Education and Training (TVET) Law, ref No. 42/NA dated December 23rd 2013.” The TVET sector plays an important part in the training of skilled workers for the industry and in meeting labor market needs. There have been no recent nationwide study on labor needs. In the most recent was made by ADB in 2009-2010, among 819 companies in 8 provinces in the study, the plan indicates a need on the need to improve the skills in the areas of” Agriculture, Tourism and hospitality, Construction and infrastructure and Information Technology.

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| --- | --- | --- | --- |
| NVQF | Qualification | Entry requirements | Duration of training |
| Level 1 | Certificate I | Primary education or equivalent and higher | 3-6 months |
| Level 3 | Certificate II | Primary education or equivalent and higher | After Certificate I: 6 months |
|  |  |  | 1 year |
| Level 3 | Certificate III |  | After Certificate Level III: 1 year |

## Project Title

## Second Strengthening Technical Vocational Education & Training (SSTVET) in LAO PDR

## 

## Project Donor & Number

## ADB Grant No. 0503-LAO (SF)

# Purpose of this competency standard

## The Purpose of the Competency Standard for the GRAPHIC AND MULTIMEDIA DESIGNERS LEVEL III is to provide a framework for Competency Based Training (CBT) Program resulting in Competent GRAPHIC AND MULTIMEDIA DESIGNERS under the INFORMATION COMMUNICATIONS TECHNOLOGY Sector of PDR Lao.

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# Competency Standard/ Qualification/ Job Description

## This Competency, Standards/ Qualification of GRAPHIC AND MULTIMEDIA DESIGNERS for Certificate LEVEL III, defined in the Manual for Developing Competency Based Standards Version March 2013.

## This Qualification is packaged from the competency map of as shown in section F of this document. This is designed to reflect the job roles of GRAPHIC AND MULTIMEDIA DESIGNERS and employees performing data entry tasks for professionals and organizations in a range of workplace settings specifically applicable to Lao PDR.

## This Competency Standard sits at NVQF Level 2 in Lao PDR, and is developed in line with CBT approach.

## Job description

## This qualification covers the skills and knowledge in Basic, Common & Core Competencies required by the Certificate LEVEL III Qualification consists of competencies that an individual must achieve to enable her/him to GRAPHIC AND MULTIMEDIA DESIGNERS (Code: 2166.xx) design visual and audiovisual content for the communication of information using print, film, electronic, digital and other forms of visual and audio media. They create special graphics, special effects, animation and other visual images for use in computer games, movies, music videos print media and advertisements. TJUFTBOEXFCTFSWFSIBSEXBSFBOETPGUXBSF n, monitor and support the optimal functioning of Internet and Intranet XFCTJUFTBOEXFCTFSWFSIBSEXBSFBOETPGUXBSF

## Person deemed competent in this qualification

* Has theoretical and practical knowledge in design concepts and technologies
* Has a range of well-developed skills in designing complex graphics and animation to satisfy functional, aesthetic an creative requirements of the design
* Has a strong understanding of the Usability interface, accessibility, cross-browser compatibility, general web functions and standards
* Has the ability to create two-dimensional and three-dimensional images depicting objects in motion or illustrating a process, using computer animation or modelling programmes.
* Has the ability to create sketches, diagram, illustrations and layouts to communicate design concepts for the subject to be communicated
* Has good communication and negotiating design solutions with clients, management, sales, production team, and stakeholders
* Has good documentation, research, and analysis skills.

**Job roles/employment outcomes**

The Certificate **Level 3** in GRAPHIC AND MULTIMEDIA DESIGNERS is intended to prepare new employees or recognize and develop existing workers who are performing ICT-related support to uses and organization or office works and IT/ICT industry/sector.

Employment outcomes targeted by this qualification is GRAPHIC AND MULTIMEDIA DESIGNERS develop existing workers who are performing ICT-related support to uses and organization or office works and IT/ICT industry/sector.

Employment outcomes targeted by this qualification is GRAPHIC AND MULTIMEDIA DESIGNERS.

**Application**

The qualification is in line with CBT principles and is suitable for a Lao PDR Apprenticeship pathway.

Where common/core units of competency are packaged to suit a particular industry sector or occupational outcome, Registered Training Organizations (RTOs) might issue, for example, a:

Certificate me in ICTGRAPHIC AND MULTIMEDIA DESIGNERS. It should be noted that a qualification with a specialization does not change the title of the qualification.

**CAREER PATH INFORMATION**

Career path into the qualification

This qualification may be accessed by direct entry. From Secondary Schools (level 9 or 12) or anybody with partial Secondary Education that meets the entry requirements.

Career path from the qualification

Further training pathways from this qualification include Certificate Level III within the IT/ICT TRADE training package qualifications.

# Outline of this Competency Standard

This Competency Standard contains ***Units of Competency*** as detailed within. These **Units** form the basis for CBT Learning Programmes for IT/ICT Trade. Each **Unit** contains the required **Elements of Competency**. Each **Unit** being able to stand alone when applied in a work situation.

Each **Unit** can be amended in content or structure to meet the evolving needs of the GRAPHIC AND MULTIMEDIA DESIGNERS. Changes and amendments to this Competency Standard will be made in line with the existing Quality Assurance Procedures as approved by the appropriate authority.

This Competency Standard is structured in line with the approved Manual for Developing Competency Standards, developed as a part of the SSTVET programme. For Quality Assurance purposes, each Unit is coded in line in the next section.

**Code Example**

With reference to the International Labor Organization website (<http://www.ilo.org/public/english/bureau/stat/isco/>), The International Standard Classification of Occupations (ISCO) is one of the main international classifications for which ILO is responsible. It belongs to the international family of economic and social classifications. In addition, ISCO is a tool for organizing jobs into a clearly defined set of groups according to the tasks and duties undertaken in the job. Its main aims are to provide: “a basis for the international reporting, comparison and exchange of statistical and administrative data about occupations; a model for the development of national and regional classifications of occupations; and a system that can be used directly in countries that have not developed their own national classifications.” PDR Lao together with many countries, have used one or more versions of ISCO as the model for their own national classifications. ISO defines the technicians- technical and related tasks connected with research and application of scientific or artistic concepts and operational methods, and government or business regulations. Competent performance in most occupations requires a skills at the third ISCO Skill level.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| *Occupation* | *Job* | *Major* | *Sub-major groups* | *Minor* | *Unit Type* | *Unit No.* | *Version No* |
| ICT | Graphic and Multimedia Designers |  |  |  |  |  |  |
|  |  | 2 | 21 | 6 | 6 | 6 | 01 |

**Selected Lao Standard Code Occupation (Ministry of Labor and Social Welfare) 2016 inclusion under the IT/ICT Trade Sector**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Major Group** | | | | | |  |  |
| **21** | **Architects, Planners, Surveyors and Designers** | | | | |  |  |
|  |  | | | | |  |  |
|  |  | Sub-major |  | | | | |
|  |  | 2166.xx | Graphic and Multimedia Designers | | | | |
|  |  |  |  |  |  | | |

A person who has achieved this Qualification is competent to be:

* Multimedia Designer
* Graphic Designer
* Computer Graphic Design
* Graphic and multimedia designer
* Commercial Artist
* Digital Artist
* Multimedia Developer

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| *Unit No.* | *CODE NO.* | *BASIC COMPETENCIES* |
| 1 | SSTVET-ICT3301 | Lead workplace communication in ICT field |
|  | *CODE NO.* | *COMMON COMPETENCIES* |
| 2 | SSTVET-ICT3302 | Solve Problems related to work activities in the ICT Field using calculations and techniques |
| 3 | SSTVET-ICT3303 | Adapt entrepreneurial and business knowledge and Skills |
|  | *CODE NO.* | *CORE COMPETENCIES* |
| 4 | SSTVET-ICT3304 | Organize and design concepts in ICT |
| 5 | SSTVET-ICT3305 | Generate Design Using Graphics Application |
| 6 | SSTVET-ICT3306 | Follow basic design guideline |
| 7 | SSTVET-ICT3307 | Generate Texts and Shapes |
| 8 | SSTVET-ICT3308 | Generate Clipping Path, Logo and Mock Up |
| 9 | SSTVET-ICT3309 | Review Final Output and Print |
| 10 | SSTVET-ICT3310 | Create Animation |
| 11 | SSTVET-ICT3311 | Develop digital content |
| 12 | SSTVET-ICT3312 | Develop website using HTML |
| 13 | SSTVET-ICT3313 | Develop website using CSS |
| 14 | SSTVET-ICT3314 | Lead small teams in the ICT workplace |
| 15 | SSTVET-ICT3315 | Plan and perform group tasks in ICT |
| 16 | SSTVET-ICT3316 | Use relevant information and communications technologies, programming, content uploading and research to attain sustainable development. |

# BASIC UNITS OF COMPETENCY

###### LEAD WORKPLACE COMMUNICATION IN THE ICT FIELD

|  |  |
| --- | --- |
| **UNIT CODE:** | SSTVET-ICT3301 |
| **UNIT DESCRIPTOR:**  This unit of competency requires the knowledge, skills and attitude of a worker to lead in the dissemination and discussion of ideas, information and issues in the workplace. | |

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| Elements & Performance Criteria | |
| **ELEMENTS** | **PERFORMANCE CRITERIA**  *(Italicized items are elaborated in the range of variables).* |
| 1. Communicate information about workplace processes | * 1. Appropriate communication method is selected   2. Multiple operations involving several topics areas are communicated accordingly   3. Questions are used to gain extra information   4. Correct sources of information are identified   5. Information is selected and organized correctly   6. Verbal and written reporting is undertaken when required   7. Communication skills are maintained in all situations. |
| 1. Lead workplace discussions | * 1. Response to workplace issues are sought   2. Response to workplace issues are provided immediately   3. Constructive contributions are made to workplace discussions on such issues as production, quality and safety   4. Goals/objectives and action plan undertaken in the workplace are communicated. |
| 1. Create creative and formal written reports | * 1. Issues and problems are identified as they arise   2. Information regarding problems and issues are organized coherently to ensure clear and effective communication   3. Dialogue is initiated with appropriate personnel   4. Communication problems and issues are raised as they arise.   5. Communication problems are solved though the: identification the problem, research, analysis, solution generating, prototyping, user testing and outcome evaluation.   6. Software product was presented and accepted by the user, certifying its use and significance to the industry/company. |
| **Range of Variables** | |
| **VARIABLES** | **RANGE** |
| 1. Methods of communication | May include but not limited to, writing:   * 1. Non-verbal gestures   2. Verbal   3. Face to face   4. Two-way radio or mobile phones   5. Speaking to groups   6. Using telephone   7. Written   8. Internet   9. Verbal |
| Evidence Guide | |
| **ASPECTS OF COMPETENCY** | **EVIDENCE REQUIREMENTS** |
| 1. Critical aspects of Competency | Assessment requires evidence that the candidate:   * 1. Use of Information and communications technologies.   2. Dealt with a range of communication/information at one time.   3. Made constructive contributions in workplace issues   4. Sought workplace issues effectively.   5. Responded to workplace issues promptly.   6. Presented information clearly and effectively written form.   7. Used appropriate sources of information.   8. Asked appropriate questions.   9. Provided accurate information. |
| 1. Underpinning knowledge and attitudes | * 1. Organization requirements for written and electronic communication methods   2. Effective verbal communication methods. |
| 1. Underpinning skills | * 1. Organize information   2. Understand and convey intended meaning   3. Participate in variety of workplace discussions   4. Comply with organization requirements for the use of written and electronic communication methods |
| 1. Resource implications | The following resources should be provided:   * 1. Variety of Information   2. Communication tools   3. Simulated workplace |
| 1. Method of Assessment | Competency in this Unit should be assessed through:   * 1. Competency in this unit must be assessed through   2. Direct Observation   3. Interview |
| 1. Context for Assessment | Competency may be assessed on the job or simulated environment:   * 1. Competency should be assessed in the workshop or simulated environment.   2. Assessment must be undertaken in accordance with Lao PDR CBT Assessment guidelines. |

###### Solve Problems RELATED TO WORK ACTIVITIES in the ict field USING CALCULATIONS and techniques

|  |  |
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| **UNIT CODE:** | SSTVET-ICT3302 |
| **UNIT DESCRIPTOR:**  This unit of competency requires the knowledge, skills and attitude of a worker to solve problems related to work place activities using calculations and techniques | |

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| Elements & Performance Criteria | |
| **ELEMENTS** | **PERFORMANCE CRITERIA**  *(Italicized items are elaborated in the range of variables).* |
| 1. Identify the problem | The variances are identified from normal operating parameters; and product quality  Extent, cause and nature are of the problem are defined through observation, investigation and analytical techniques  Problems are clearly stated and specified.  Reason mathematically about basic data types and structures (such as numbers, sets, graphs, and trees) used in computer algorithms and systems; distinguish rigorous definitions and conclusions from merely plausible ones; synthesize elementary proofs, especially proofs by induction  Model and analyze computational processes using analytic and combinatorial methods.  Apply principles of discrete probability to calculate probabilities and expectations of simple random processes.  Work in small teams to accomplish all the objectives above. |
| 1. Determine fundamental problem causes | * 1. Possible causes are identified based on experience and the use of problem solving tools / analytical techniques.   2. Possible cause statements are developed based on findings   3. Fundamental causes are identified per results of investigation conducted. |
| 1. Determine corrective actions | * 1. All possible options are considered for resolution of the problem   2. Strengths and weaknesses of possible options are considered   3. Corrective actions are determined to resolve the problem and possible future causes   4. Action plans are developed identifying measurable objectives, resource needs and timelines in accordance with safety and operating procedures. |
| 1. Provide recommendations | * 1. Report on recommendations are prepared   2. Recommendations are presented to appropriate personnel in line with SOP & QMS   3. Recommendations are followed-up as required. |
| **Range of Variables** | |
| **VARIABLES** | **RANGE** |
| 1. Calculations and techniques | Calculus  Statistics  Research format and applications |
| 1. Analytical techniques | Brainstorming  Intuition & Logic  Cause and effect diagrams  Pareto analysis  SWOT analysis  Gant chart, Pert CPM and graphs  Scatter-grams. |
| Problem issues | Non – routine process and quality problem  Equipment selection, availability and failure  Teamwork and work allocation problem  Safety and emergency situations and incidents. |
| Action plans | Priority requirements  Measurable objectives  Resource requirements  Timelines  Co-ordination and feedback requirements  Safety requirements  Risk assessment  Environmental requirements. |
| **Evidence Guide** | |
| **ASPECTS OF COMPETENCY** | **EVIDENCE REQUIREMENTS** |
| 1. Critical aspects of Competency | Assessment requires evidence that the candidate:   1. Identified the problem    1. Determined the fundamental causes of the problem    2. Determined the correct / preventive action    3. Provided recommendation to manager    4. These aspects may be best assessed using a range of scenarios / case studies / what ifs as a stimulus with a walk through forming part of the response. These assessment activities should include a range of problems, including new, unusual and improbable situations that may have happened.   Ethics and professional conduct in IT/ICT is demonstrated. |
| 1. Underpinning knowledge and attitudes | * 1. Knowledge and understanding of the problem solving process.   2. Fundamental concepts of Calculus and Statistics   3. Application of Calculus and Statistics |
| 1. Underpinning skills | * 1. Using range of formal problem solving technique   2. Identifying and clarifying the nature of the problem   3. Devising the best solution   4. Evaluating the solution   5. Implementation of a developed plan to rectify the problem |
| 1. Resource implications | The following resources should be provided:   * 1. Access to an operating plant over an agreed period of time   2. A suitable method of gathering evidence of operating ability over a range of situations. A bank of scenarios / case studies / what ifs will be required as bank of questions which will be used to probe the reason behind the observable action. |
| 1. Method of Assessment | Competency in this Unit should be assessed through:   * 1. Case studies on solving problems in the workplace   2. Observation. The unit may be assessed in a holistic manner as is practical and may be integrated with the assessment of other relevant units of competency. Assessment will occur over a range of situations, which will include disruptions to normal, smooth operation.     *Evidence provided for competency determination will be Valid, Sufficient & Current* |
| 1. Context for Assessment | Competency may be assessed on the job or simulated environment:   1. Assessment shall be in the workplace. It may be appropriate to assess this unit concurrently with relevant teamwork or operational units. 2. Assessment must be undertaken in accordance with Lao PDR CBT Assessment guidelines. |

***UNIT 3 ADAPT ENTREPRENEURIAL, BUSINESS AND ACCCOUNTING INCLINATION***

|  |  |  |
| --- | --- | --- |
| **UNIT CODE:** | SSTVET-ICT3303 | |
| **UNIT DESCRIPTOR:**  This unit covers knowledge, skills and attitudes required of a worker to observe in the conduct of basic market research and statistics on demand and supply, software tools for personal, accounting and small- business and marketing content materials. | | |
| **ELEMENTS** | | **PERFORMANCE CRITERIA**  *(Italized items are elaborated in the range of variables)* |
| * 1. Understanding economics and entrepreneurial concepts | | Successful entrepreneurs’ skills are identified:   * + 1. Resiliency     2. Focus     3. Long-term Investing     4. People Management     5. Innate/Personal Traits        1. Salesmanship        2. Self-reflection        3. Self-reliance     6. Other traits   The law on demand and supply and basic economics concepts are understood:   * + 1. Law on Supply     2. Law on Demand     3. Supply and Demand Relationship     4. Equilibrium and Disequilibrium     5. Shift and Movement     6. Economics and Markets, Marketing tools   A comprehensive personal or group entrepreneurial skills in comparison with successful entrepreneurs’ skills is presented in tabular and textual form.  Communication skills in written and oral form are applied. |
| Apply and use tools or applications for personal and small-business budgeting, accounting | | * 1. Explored on various productivity, accounting and business software   2. Identify the latest software, hardware and application systems for business.   3. Create a personal, family and small-business budget plans and forecast   4. Software for budget preparations, simple budget analysis, sales and sales forecasting are used. |
| 1. Identify the requirements and processes in setting-up a small business. | | 3.1 Various types of business are explored on:   * + 1. Home Business     2. Services     3. Product Sales     4. Online Business   1. Basic marketing strategies for business that would best-fit a business case is presented in a report format.   2. A market research is prepared. |
| 1. Conduct basic market research and statistics on demand and supply | | * 1. Conduct a case analysis adapting learned concepts.   2. Adept on the parts and process of creating small business plan and its requirements   3. Adopt simple successful business strategies used by leading entrepreneurs   4. Use software and statistical tools for the business case/project |

**RANGE OF VARIABLES**

|  |  |
| --- | --- |
| 1. Business Processes | * 1. Law on demand and supply   2. Economic concepts   3. Laws on setting-up a small-business   4. Local requirements   5. Markets and Marketing concepts |
| 1. Budget and forecasting | * 1. Software applications and systems for forecast   2. Statistical and Mathematica tools. |
| 1. Market research | * 1. Primary data or information   2. Secondary data or information   3. Guidelines on using data gathering tool |
| 1. Communication skills | * 1. Writing business letters   2. Presenting one-self to a person or group   3. Values and characteristics of business professional |

**EVIDENCE GUIDE**

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| 1. Critical aspects of competency | Assessment requires evidence that the candidate:   * 1. Followed OHS policies and procedures   2. Used software tools for business-related activities and analysis   3. Communicate effectively.   4. Perseverance and professional ethics. |
| 1. Underpinning knowledge and attitude | * 1. Clear understanding of business and marketing concepts as:      1. Law on Supply      2. Law on Demand      3. Supply and Demand Relationship      4. Equilibrium and Disequilibrium      5. Shift and Movement      6. Economics and Markets, Marketing |
| 1. Underpinning skills | * 1. Ability to read and understand ohms workplace documents in English   2. Work effectively with others   3. Ability to follow simple directions, charts, and procedures |
| 1. Resource implications | The following resources must be provided:   * 1. Laboratory Room   2. Work place procedure   3. Materials relevant to the proposed activity   4. All tools, equipment, material and documentation required   5. Relevant specifications or work instructions |
| 1. Methods of Assessment | Competency must be assessed through:   * 1. Written test   2. Oral questions   3. Computer laboratory work   4. Demonstration   5. Rubrics for laboratory work or outputs |
| 1. Context of Assessment | * 1. Competency should be assessed in an actual workshop or simulated environment. |

# CORE UNITS OF COMPETENCY

***UNIT 4 ORGANIZE AND DESIGN CONCEPTS IN ICT***

|  |  |
| --- | --- |
| **UNIT CODE:** | SSTVET-ICT3304 |
| **UNIT DESCRIPTOR:**  This unit of competency requires the knowledge, skills and attitude of a worker needed to prepare/interpret diagrams, engineering abbreviation and drawings, symbols, dimension. | |

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| Elements & Performance Criteria |

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| **ELEMENTS** | **PERFORMANCE CRITERIA**  *(Italicized items are elaborated in the range of variables).* |
| 1. Identify different kinds of designs and techniques | * 1. English communication is applied in the workplace.   2. Design concepts and techniques including wire framing, storyboarding, and creating flowcharts are understood.   3. Software design concepts and techniques including flowchart and other diagrams are understood and used. |
| 1. Analyze schematics and designs | * 1. The components, assemblies or objects are recognized as required.   2. Specifications documents are read and understood.   3. A software product that responds to client requirements and specification are delivered and/or presented.   4. Information are gathered and analyzed. |
| 1. Solve design problems | * 1. The ICT schematic is drawn and correctly identified.   2. Correct drawing is identified, equipment are selected and used in accordance with job requirements.   3. Communication problems including: identifying the problem, research, analysis, solution generating, prototyping, user testing and outcome evaluation   4. evaluated Interpret standards and requirements   5. Match client requirements   6. Present a concept to meet business requirements |

**Range of Variables**

|  |  |
| --- | --- |
| 1. Technical drawings | May include the following but not limited to:   * 1. Flowcharts   2. Schematic diagrams   3. Charts   4. Processes   5. Process and instrumentation diagrams |
| 1. Dimensions | May include but not limited to:   * 1. Length   2. Width   3. Height   4. Diameter   5. Angles   6. Size |
| 1. Symbols | May include but not limited to:   * 1. Lao Standard codes   2. Other Codes |
| 1. Instruments/Equipment | * 1. Software   2. Softcopy of files   3. Components/dividers   4. Tools: Drawing boards, Rulers, T-square, Calculator |

**EVIDENCE GUIDE**

|  |  |
| --- | --- |
| 1. Critical Aspects of Competency | Assessment requires evidence that the candidate:   * 1. Set objectives   2. The selected correct technical drawing in line with job requirements   3. Has correctly identified the objects represented in the drawing   4. Has identified and interpreted symbols used in the drawing correctly   5. Has prepared/produced “ “drawings including all relevant specifications   6. Has stored diagrams/equipment |
| 1. Underpinning Knowledge | * 1. Planning   2. Drawing conventions   3. Symbols   4. Dimensioning Conventions   5. Mathematics   6. Four fundamental operations   7. Percentage   8. Fraction   9. Trigonometric Functions   10. Calculus   11. Statistics |
| 1. Underpinning Skills | * 1. Planning and organizing skills   2. Reading skills required to interpret work instruction   3. Communication skill   4. Interpreting “ “signs and symbols |
| 1. Resource Implications | The following resources **MUST** be provided:   * 1. Materials, tools, equipment and facilities appropriate to the proposed activities   2. Drawings   3. Diagrams   4. Charts   5. Plans |
| 1. Methods of Assessment | Competency may be assessed through:   * 1. Direct observations /questioning.   2. Practical exercises on tasks involving interpretation of a range of technical drawings |
| 1. Context of Assessment | * 1. Competency assessment may occur in workplace or any appropriately simulated environment.   2. Assessment must be undertaken in accordance with Lao PDR CBT Assessment guidelines   3. Assessment shall be observed while task are being undertaken whether individually or in-group |

***UNIT 5 CREATE DESIGN USING GRAPHIC APPLICATIONS***

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| **UNIT CODE:** | SSTVET-ICT3305 |
| **UNIT DESCRIPTOR:**  This unit of competency requires the knowledge, skills and attitude of a worker required in generate design using graphics application. It specifically includes the tasks of preparing the work environment, producing objects with/without typing, setting up layers and appearance attributes and finalizing document. | |

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| Elements & Performance Criteria |

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| **ELEMENTS** | **PERFORMANCE CRITERIA**  *(Italicized items are elaborated in the range of variables).* |
| 1. Prepare the work environment | * 1. Adjusted work where necessary to improve technical, conceptual and commercial value   2. Checked quality of work according to workplace requirements/specifications   3. Created and applied shapes and text in accordance with job requirements/specifications.   4. Prepared equipment and software as per workplace requirement.   5. The equipment and software are checked for conformance and usability.   6. The equipment and software are prepared as per workplace requirement. |
| 1. Produce objects with/without typing | * 1. Color and appearance attributes are selected and copied as required   2. Colors are created, edited and saved to the color palette and saturation of color is adjusted   3. Gradients fills, mesh and patterns are used to paint and blend as required by the layout and design brief   4. Lines and curves are adjusted and edited to fit design specifications   5. Objects are painted, transposed and strokes and effects are scaled according to the design brief   6. Page layout application is identified in accordance with job requirements/specification.   7. Ruler units are set and grid is displayed to ensure artwork meets design specifications   8. Shapes and texture are created and applied in accordance with job requirements/specifications.   9. The output to be generated is determined in accordance with job requirements/specifications.   10. The quality of work was ensured.   11. Tools are used to produce objects and required attributes are entered and shapes are manipulated until graphic framework is finalized   12. Objects are grouped or individually selected, moved, scaled or rotated using a variety of methods according to workplace standard |
| 1. Set up layers and appearance attributes | * 1. Appearances required for further use are saved as styles   2. Effects are added to a graphic and edited to make the appearance more suitable according to the design brief   3. Layers are locked and / or nested and grouped according to the design brief   4. Objects are organized in layers and stacking order is controlled   5. Required type is added to type containers and type attributes and formatting are set to reflect the design brief   6. Styles are added or removed from layers when layer consistency is or is not required.   7. The properties of the graphic are set and met the design brief |
| 1. Finalize document | * 1. The appropriate format for saving the graphic is identified given the various elements in the graphic   2. The resolution for effects and any filters are set based on image quality.   3. Document is checked to ensure correct layout file and that there are no non-printable elements.   4. PDF or other export options are fixed to the best settings for the final media and the file is then exported and saved |

**Range of Variables**

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| 1. Page layout application | * 1. Adobe Illustrator   2. Adobe Photoshop   3. Quark Xpress   4. Adobe InDesign   5. InDesign   6. Creator Professional   7. Page Plus |
| 1. Shapes | * 1. Square   2. Triangle   3. Circle   4. Ellipse   5. Crescent   6. Rectangle   7. Polygons   8. Cube   9. Cylinder   10. Cone |
| 3. Shapes manipulation | * 1. Shapes are rotated   2. Position and sizes changed   3. Shapes sent to back or forward   4. Scaled and copied |
| 4. Objects | * 1. Predefined shapes   2. Drawn objects   3. Curved segments   4. Lines |
| 5. Appearance attributes | * 1. Fills   2. Strokes   3. Effects   4. Columns   5. Bleeding mode   6. Transparency |
| 6. Colors | * 1. Process colors   2. Spot colors   3. Registration colors   4. PMS |
| 7. Methods | * 1. Reflecting of object   2. Shearing of objects   3. Distorting of objects   4. Forming 3-dimensional objects color blending |
| 8. Pencil Tools | * 1. Straight lines   2. Curve   3. Closed shapes |

**EVIDENCE GUIDE**

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| 1. Critical Aspects of Competency | Assessment requires evidence that the candidate:   * 1. Prepared equipment and software as per workplace requirement.   2. Created and applied shapes and text in accordance with job requirements/specifications.   3. Checked quality of work according to workplace requirements/specifications   4. Adjusted work where necessary to improve technical, conceptual and commercial value.   5. Arranged palettes to suit job and personal preferences   6. Set ruler units and displayed grid to ensure artwork meets design specifications   7. Adjusted lines and curves and edited to fit design specifications   8. Painted and transposed objects and scaled strokes and effects according to the design brief   9. Used and manipulated application pen tool   10. Created path using pen tool around the image area   11. Saved clipping path in the chosen file   12. Created basic shape using the pen tool of the selected application   13. Selected and applied desired color   14. Selected desired shadow where applicable   15. Added text in accordance with project design requirement   16. Added background gradient where desirable   17. Completed logo   18. Executed steps in preparing mockup in accordance with conceptualized design   19. Executed steps in setting up smart object   20. Accomplished steps in editing smart object   21. Completed and saved mock up   22. Used gradients, fills, mesh and patterns to paint and blend as required by the layout and design brief   23. Grouped objects or selected, moved, scaled individually or rotated using a variety of methods according to workplace standard   24. Organized objects in layers and controlled stacking order   25. Locked layers and / or nested and grouped according to the design brief   26. Added styles or removed from layers when layer consistency not required   27. Set the resolution for effects and based any filters on image quality |
| 1. Underpinning Knowledge | * 1. Equipment and software preparation procedures   2. Types of page layout application   3. Procedure of creating and applying shapes   4. Types of text and means of creating   5. Method of checking quality of work   6. Advantages of obtaining constructive criticism from others   7. Techniques of obtaining constructive criticism   8. Procedure of checking/editing works   9. Types of graphic design application   10. Steps in opening graphics applications   11. Application pen tool   12. Steps in creating path using pen tool around the image area   13. Steps in saving clipping path in the chosen file   14. Procedure in opening and using desired graphics application   15. Procedure in creating a new document   16. Steps in creating basic shape using the pen tool   17. Steps in selecting and applying color   18. Shadow selection   19. Procedure in adding text   20. Background gradient   21. Saving the logo   22. Steps in preparing mockup   23. Steps in setting up smart object   24. Steps in editing smart object   25. Procedure in completing and saving mock up |
| 1. Underpinning Skills | * 1. Preparing equipment and software as per workplace requirement   2. Checking equipment and software for conformance and usability   3. Determining output to be generated in accordance with job requirements/specifications   4. Identifying page layout application in accordance with job requirements/specification   5. Creating and applying shapes and text in accordance with job requirements/specifications   6. Checking quality of work according to workplace requirements/specifications   7. Obtaining constructive criticism from others   8. Adjusting work where necessary to improve technical, conceptual and commercial value   9. Opening and using graphic design application   10. Using and manipulating application pen tool   11. Opening and using desired graphics application   12. Creating path using pen tool around the image area   13. Saving clipping path in the chosen file   14. Opening and using desired graphics application   15. Creating new document   16. Creating basic shape using the pen tool of the selected application   17. Selecting and applying desired color   18. Selecting desired shadow where applicable   19. Adding text in accordance with project design requirement   20. Adding background gradient where desirable   21. Completing and saving logo   22. Opening and using desired graphics application   23. Executing steps in preparing mockup in accordance with conceptualized design   24. Executing steps in setting up smart object   25. Accomplishing steps in editing smart object   26. Completing and saving mock up |
| 1. Resource Implications | The following resources **MUST** be provided:   * 1. PC or workstation   2. Workplace (simulated or actual)   3. Personal computer/laptop   4. Application software   5. Pens   6. Paper   7. Instruction sheet/manual.   8. Workplace (simulated or actual)   9. Personal computer/laptop   10. Pens   11. paper   12. instruction sheet/manual   13. Graphics and animation software, video editor, etc. |
| 1. Methods of Assessment | Competency may be assessed through:   * 1. Demonstration   2. Written examination   3. Portfolio Assessment   4. Interview   5. Case Study/Situation |
| 1. Context of Assessment | * 1. Competency assessment may occur in workplace or any appropriately simulated environment.   2. Assessment must be undertaken in accordance with Lao PDR CBT Assessment guidelines   3. Assessment shall be observed while task are being undertaken whether individually or in-group |

***UNIT 6 FOLLOW BASIC DESIGN GUIDELINE***

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| **UNIT CODE:** | SSTVET-ICT3306 |
| **UNIT DESCRIPTOR:**  This unit of competency requires the knowledge, skills and attitude of a worker to follow basic design guideline in web design works. It specifically includes the tasks of acquiring and developing technical design skills, developing conceptual skills and ideas and seeking strategies. | |

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| Elements & Performance Criteria |

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| **ELEMENTS** | **PERFORMANCE CRITERIA**  *(Italicized items are elaborated in the range of variables).* |
| 1. Acquire and develop technical skills | * 1. Basic design guidelines are identified in graphic design.   2. Capabilities to develop technical skills in basic design with materials, tools and equipment are demonstrated.   3. Opportunities to continuously improve technical skills in basic design are demonstrated through identification, practice, feedback, discussion and evaluation.   4. Relevant journals, magazines, catalogues and other media are Identified and used to stimulate technical and professional development in basic design guidelines.   5. Technical skills to achieve basic design in graphic design are identified. |
| 1. Develop conceptual skills and ideas | * 1. A range of opportunities to develop own practice and keep informed about current design practice are identified and used for basic design guidelines   2. Ability to gain experience in a range of genres and interpretation of basic design guidelines is demonstrated.   3. Work of others is studied to stimulate conceptual and idea development   4. Working with others to develop basic design ideas is exhibited. |
| 1. Seek strategies to develop self | * 1. Team effort is rewarded and support provided to develop mutual concern and camaraderie and to maximize benefit from team diversity.   2. Ability to explore and experiment with new ideas in making and/or interpreting work is demonstrated.   3. Exploration and use of technology where appropriate to expand own practice is demonstrated   4. Strategies for developing self as a designer is sought |

**Range of Variables**

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| 1. Technical design skills | * 1. Animation   2. Entertainment design   3. Graphic design   4. Illustration/technical drawing   5. Interior design   6. Other design disciplines   7. Photo imaging, editing |
| 1. Opportunities | * 1. Exhibitions   2. Floor talks at galleries   3. Competitions   4. Master classes   5. Trade fairs, expositions   6. Websites |
| 1. Strategies | * 1. Working effectively with supervisor   2. Participating in professional development and other learning opportunities   3. Undertaking training courses   4. Practicing   5. Participating in relevant groups or associations   6. Experimenting/exploring   7. Communicating with peers   8. Being involved in a range of relevant design activities |

**EVIDENCE GUIDE**

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| 1. Critical Aspects of Competency | Assessment requires evidence that the candidate:   * 1. Demonstrated ability to gain experience in a range of genres and interpretation of basic design guidelines   2. Demonstrated capabilities to develop technical skills in basic design with materials, tools and equipment   3. Demonstrated opportunities to continuously improve technical skills in basic design through identification, practice, feedback, discussion and evaluation.   4. Demonstrating opportunities to continuously improve technical skills in basic design through identification, practice, feedback, discussion and evaluation.   5. Exhibited working with others to develop basic design ideas   6. Identified and used opportunities to develop own practice and keep informed about current design trends serving as guidelines.   7. Identified and used relevant journals, magazines, catalogues and other media to stimulate technical and professional development in basic design guidelines. |
| 1. Underpinning Knowledge | * 1. Capabilities to develop technical skills in basic design using materials, tools and equipment   2. interpretation of basic design guidelines   3. Methods of developing basic design ideas   4. opportunities to develop own practice and keep informed about current design trends   5. Opportunities to improve technical skills in basic design.   6. Types of journals, magazines, catalogues and other media relevant to stimulate technical and professional development in basic design guidelines. |
| 1. Underpinning Skills | * 1. Communication skills required for leading teams   2. Demonstrating opportunities to continuously improve technical skills in basic design through identification, practice, feedback, discussion and evaluation.   3. Demonstrating capabilities to develop technical skills in basic design with materials, tools and equipment   4. Identifying and using relevant journals, magazines, catalogues and other media to stimulate technical and professional development in basic design guidelines.   5. Exhibiting to work with others and develop basic design ideas   6. Demonstrating ability to gain experience in a range of genres and interpreting basic design guidelines   7. Identifying and using opportunities to develop own practice and keeping informed about current design trends serving as guidelines.   8. Patience, upholding IT sector etiquette, Environmental concerns, Eagerness to learn, Tidiness and timeliness   9. Respect for rights of peers and seniors in workplace |
| 1. Resource Implications | The following resources **MUST** be provided:   * 1. Access to relevant workplace or appropriately simulated environment where assessment can take place   2. Materials relevant to the proposed activity or task: Personal computer/laptop, Pens, paper, instruction sheet/manual |
| 1. Methods of Assessment | Competency may be assessed through:   * 1. Direct observations of work activities of the individual member in relation to the work activities of the group   2. Observation of simulation and/or role play involving the participation of individual member to the attainment of organizational goal   3. Written assessment   4. Portfolio |
| 1. Context of Assessment | * 1. Competency assessment may occur in workplace or any appropriately simulated environment   2. Context for Assessment   3. Competency may be assessed on the job or simulated environment:   4. Competency may be assessed in workplace or in a simulated workplace setting   5. Assessment shall be observed while task are being undertaken whether individually or in group.   6. Assessment must be undertaken in accordance with Lao PDR CBT Assessment guidelines   7. Assessment shall be observed while task are being undertaken whether individually or in-group |

***UNIT 7 GENERATE TEXTS AND SHAPES***

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| **UNIT CODE:** | SSTVET-ICT3307 |
| **UNIT DESCRIPTOR:**  This unit of competency requires the knowledge, skills and attitude to generate shapes and text when performing the job of graphic designer. It specifically includes the tasks of preparing equipment and related software, creating shapes and text and checking work quality. | |

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| Elements & Performance Criteria |

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| **ELEMENTS** | **PERFORMANCE CRITERIA**  *(Italicized items are elaborated in the range of variables).* |
| 1. Prepare equipment and related software | * 1. Equipment and software are prepared as per workplace requirement.   2. Equipment and software are checked for conformance and usability |
| 1. Create shapes and text | * 1. Ability to gain experience in a range of genres and Output to be generated is determined in accordance with job requirements/specifications   2. Page layout application is identified in accordance with job requirements/specification   3. Shapes and texture are created and applied in accordance with job requirements/specifications   4. Working with others to develop basic design ideas is exhibited. |
| 1. Check work quality | * 1. Team Quality of work is checked according to workplace requirements/specifications   2. Constructive criticism from others is obtained   3. Work is adjusted where necessary to improve technical, conceptual and commercial value |

**Range of Variables**

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| 1. Page layout application | * 1. Adobe Illustrator   2. Adobe Photoshop   3. Quark Xpress   4. Adobe in Design   5. Adobe Page maker   6. Adobe Frame Maker   7. Adobe Flash CS3   8. InDesign   9. Creator Professional   10. Page Plus |
| 1. Shapes | * 1. Square   2. Triangle   3. Circle   4. Ellipse   5. Crescent   6. Rectangle   7. Polygons   8. Cube   9. Cylinder   10. Cone |

**EVIDENCE GUIDE**

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| 1. Critical Aspects of Competency | Assessment requires evidence that the candidate:   * 1. Prepared equipment and software as per workplace requirement.   2. Created and applied shapes and text in accordance with job requirements/specifications.   3. Checked quality of work according to workplace requirements/specifications   4. Adjusted work where necessary to improve technical, conceptual and commercial value |
| 1. Underpinning Knowledge | * 1. Opportunities to improve technical skills in basic design.   2. Equipment and software preparation procedures   3. Types of page layout application   4. Procedure of creating and applying shapes   5. Types of text and means of creating   6. Method of checking quality of work   7. Advantages of obtaining constructive criticism from others   8. Techniques of obtaining constructive criticism   9. Procedure of checking/editing works. |
| 1. Underpinning Skills | * 1. Preparing equipment and software as per workplace requirement   2. Checking equipment and software for conformance and usability   3. Determining output to be generated in accordance with job requirements/specifications   4. Identifying page layout application in accordance with job requirements/specification   5. Creating and applying shapes and text in accordance with job requirements/specifications   6. Checking quality of work according to workplace requirements/specifications   7. Obtaining constructive criticism from others   8. Adjusting work where necessary to improve technical, conceptual and commercial value   9. Patience   10. Upholding IT sector etiquette   11. Environmental concerns   12. Eagerness to learn   13. Tidiness and timeliness   14. Respect for rights of peers and seniors in workplace. |
| 1. Resource Implications | The following resources **MUST** be provided:   * 1. Access to relevant workplace or appropriately simulated environment where assessment can take place   2. Materials relevant to the proposed activity or task: Personal computer/laptop, Pens, paper, instruction sheet/manual |
| 1. Methods of Assessment | Competency may be assessed through:   * 1. Direct observations of work activities of the individual member in relation to the work activities of the group   2. Observation of simulation and/or role play involving the participation of individual member to the attainment of organizational goal   3. Written assessment   4. Portfolio |
| 1. Context of Assessment | * 1. Competency assessment may occur in workplace or any appropriately simulated environment   2. Context for Assessment   3. Competency may be assessed on the job or simulated environment:   4. Competency may be assessed in workplace or in a simulated workplace setting   5. Assessment shall be observed while task are being undertaken whether individually or in group.   6. Assessment must be undertaken in accordance with Lao PDR CBT Assessment guidelines   7. Assessment shall be observed while task are being undertaken whether individually or in-group |

***UNIT 8 GENERATE CLIPPING PATH, LOGO AND MOCK UP***

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| **UNIT CODE:** | **SSTVET-ICT3308** |
| **UNIT DESCRIPTOR:**  This unit of competency requires the knowledge, skills and attitude to generate clipping path, logo and mock up. It specifically includes the tasks of preparing the work environment, use of vector graphics application, creating clipping path, creating logo and creating mock up. | |

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| Elements & Performance Criteria |

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| **ELEMENTS** | **PERFORMANCE CRITERIA**  *(Italicized items are elaborated in the range of variables).* |
| 1. Use vector graphics application and prepare the work environment | * 1. Identify and use vector graphics application   2. Details of the design project are reviewed to identify preference setting requirements   3. View magnification is set for ease of working with the graphics application   4. Graphic design application is opened and used   5. Application pen tool is used and manipulated   6. Desired pencil tool option is chosen   7. Usage of pencil tools are understood |
| 1. Create clipping path | * 1. Ruler units are set and grid is displayed to ensure artwork meets design specifications   2. Desired graphics application is opened and used   3. Path is created using pen tool around the image area   4. Path is named and saved in the paths panel menu   5. Clipping path is chosen from the same panel menu   6. Path drop-down list is chosen from the clipping paths dialog box   7. Clipping path is saved in the chosen file |
| 1. Create logo | * 1. Required type is added to type containers and type attributes and formatting are set to reflect the design brief   2. Desired graphics application is opened and used   3. New document is created   4. Basic shape is created using the pen tool of the selected application   5. Desired color is selected and applied   6. Desired shadow is selected where applicable   7. Text is added in accordance with project design requirement   8. Background gradient is added where desirable   9. Logo is completed and saved |
| 1. Create mock up | 4.1 Desired graphics application is opened and used  4.2 New document is created  4.3 Steps in preparing mockup is executed in accordance with conceptualized design  4.4 Steps in setting up smart object is executed  4.5 Steps in editing smart object is accomplished  4.6 Mock up is completed and saved |

**Range of Variables**

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| 1. Graphics application | * 1. Adobe Illustrator, Adobe Illustrator CS   2. CorelDraw X4   3. InDesign CS |
| 1. Pencil tools | * 1. Square   2. Pen   3. Brush   4. Eraser |
| 1. Path | * 1. Straight lines   2. Curve   3. Closed shapes |
| 1. Basic shape | * 1. Circle   2. Square   3. Rectangle   4. Pyramid   5. Oval |
| 1. Steps in preparing mockup | 5.1 Start with product shots  5.2 Prepare a separate layer  5.3 Make screen layer  5.4 Do housekeeping/organizing work |
| 1. Steps in setting up smart object | 6.1 Convert layers to smart object  6.2 Re-size the smart object  6.3 Make a duplicate of smart object layer  6.4 Drag smart object copy to laptop screen layer  6.5 Make another copy and place it above the screen layer  6.6 Clip the smart objects to their respective screen |
| 1. Steps in editing smart object | 7.1 Double click on smart object thumbnail to edit  7.2 Edit the smart object |

**EVIDENCE GUIDE**

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| 1. Critical Aspects of Competency | Assessment requires evidence that the candidate:   * 1. Used and manipulated application pen tool   2. Created path using pen tool around the image area   3. Saved clipping path in the chosen file   4. Created basic shape using the pen tool of the selected application   5. Selected and applied desired color   6. Selected desired shadow where applicable   7. Added text in accordance with project design requirement   8. Added background gradient where desirable   9. Completed logo   10. Executed steps in preparing mockup in accordance with conceptualized design   11. Executed steps in setting up smart object   12. Accomplished steps in editing smart object   13. Completed and saved mock up   14. Design layout pages |
| 1. Underpinning Knowledge | * 1. Types of graphic design application   2. Steps in opening graphics applications   3. Application pen tool   4. Steps in creating path using pen tool around the image area   5. Steps in saving clipping path in the chosen file   6. Procedure in opening and using desired graphics application   7. Procedure in creating a new document   8. Steps in creating basic shape using the pen tool   9. Steps in selecting and applying color   10. Shadow selection   11. Procedure in adding text   12. Background gradient   13. Saving the logo   14. Steps in preparing mockup   15. Steps in setting up smart object   16. Steps in editing smart object   17. Procedure in completing and saving mock up |
| 1. Underpinning Skills | * 1. Opening and using graphic design application   2. Using and manipulating application pen tool   3. Opening and using desired graphics application   4. Creating path using pen tool around the image area   5. Saving clipping path in the chosen file   6. Opening and using desired graphics application   7. Creating new document   8. Creating basic shape using the pen tool of the selected application   9. Selecting and applying desired color   10. Selecting desired shadow where applicable   11. Adding text in accordance with project design requirement   12. Adding background gradient where desirable   13. Completing and saving logo   14. Opening and using desired graphics application   15. Executing steps in preparing mockup in accordance with conceptualized design   16. Executing steps in setting up smart object   17. Accomplishing steps in editing smart object   18. Completing and saving mock up |
| 1. Resource Implications | The following resources **MUST** be provided:   * 1. Access to relevant workplace or appropriately simulated environment where assessment can take place   2. Materials relevant to the proposed activity or task: Personal computer/laptop, Pens, paper, instruction sheet/manual |
| 1. Methods of Assessment | Competency may be assessed through:   * 1. Direct observations of work activities of the individual member in relation to the work activities of the group   2. Observation of simulation and/or role play involving the participation of individual member to the attainment of organizational goal   3. Written assessment   4. Portfolio |
| 1. Context of Assessment | * 1. Competency assessment may occur in workplace or any appropriately simulated environment   2. Context for Assessment   3. Competency may be assessed on the job or simulated environment:   4. Competency may be assessed in workplace or in a simulated workplace setting   5. Assessment shall be observed while task are being undertaken whether individually or in group.   6. Assessment must be undertaken in accordance with Lao PDR CBT Assessment guidelines   7. Assessment shall be observed while task are being undertaken whether individually or in-group |

***UNIT 9 REVIEW FINAL OUTPUT AND PRINT***

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| **UNIT CODE:** | **SSTVET-ICT3309** |
| **UNIT DESCRIPTOR:**  This unit of competency requires the knowledge, skills and attitude to review final output and print graphic designs. It specifically includes the tasks of checking image quality and file size, manipulating objects and text, importing images, setting color separation and finalizing media and printing. | |

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| Elements & Performance Criteria |

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| **ELEMENTS** | **PERFORMANCE CRITERIA**  *(Italicized items are elaborated in the range of variables).* |
| 1. Check image quality and file size | * 1. File size is checked and adjusted where necessary   2. Graphics application and files are opened and design brief requirements are confirmed.   3. Graphics are repeated efficiently using a symbol or stamp to reduce file size   4. Image quality is checked and adjusted where necessary   5. Slices are created from objects, layers or groups and updated as required   6. Tasks are automated and where necessary scripts are used for automation. |
| 1. Manipulate objects and text | * 1. Complex shapes are created and edited.   2. Manipulation and editing of Objects and text are made according to design brief   3. Repetition tools are identified and used to create duplicates and then are manipulated as a group |
| 1. Import images | * 1. Bitmap images are embedded and / or linked in the file   2. Bitmaps are masked and / or an opacity mask is added   3. Layered file is exported to image editing program and edited   4. Placed Bitmaps are modified and / or duplicated according to design requirements |
| 1. Set color separation | * 1. Based on printer feedback the color separation options are set according to print requirements of the design brief   2. Command preferences are set to correct preferences for print quality and process   3. Process and spot colors are combined as require   4. The correct format for the color separation is determined by the requirements of the pre-press workflow system |
| 1. Finalize media and print | 5.1 A screen frequency value appropriate for the print quality is selected and color separation preferences are saved  5.10 Compression options are selected that keep the image quality high and the file size low.  5.11 Export options are set to the best settings for the final media and the file is saved and exported  5.12 Final media is printed  5.2 Spreads and chokes traps are created to avoid miss-registration  5.3 The overlapping and overprint of objects are defined  5.4 A proof is created and the separations checked, any required editing is completed and the file is saved  5.5 Metadata tags are embedded to catalogue, organize and retrieve artwork  5.6 For cross-media publishing purposes web-safe colors are selected  5.7 File formats are chosen to best represent artwork  5.8 Objects are linked to create an image map that meets design requirements  5.9 Objects are layered to create animation frames and exported for animation set up |

**Range of Variables**

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| 1. Graphics application | * 1. Adobe Illustrator   2. Adobe Illustrator CS   3. Adobe Photoshop   4. Corel Paint shop   5. CorelDraw X4   6. Fat paint   7. InDesign CS   8. Quark Xpress |
| 1. Objects | * 1. Curved segments   2. Drawn objects   3. Lines   4. Predefined shapes |
| 1. Manipulation and editing | * 1. Bend   2. Stretch   3. Twist   4. Warping   5. Liquefy |
| 1. Format | * 1. Front   2. Leading   3. Paragraph   4. Alignment   5. Character size   6. Columns of type   7. Text flow |
| 1. Color separation | * 1. Light color   2. Bleed   3. Color registration   4. Custom co\lor   5. Gradients   6. Halftone   7. Printer marks   8. Process color   9. Resolution   10. Spot color   11. Transparency |

**EVIDENCE GUIDE**

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| 1. Critical Aspects of Competency | Assessment requires evidence that the candidate:   * 1. Checked and adjusted image quality where necessary   2. Manipulated and edited objects and text according to design brief   3. Created and edited complex shapes   4. Embedded and / or linked bitmap images in the file   5. Modified placed bitmaps and / or duplicated according to design requirements   6. Masked bitmaps and / or added an opacity mask   7. Combined process and spot colors as required   8. Selected web-safe colors for cross-media publishing purposes   9. Linked objects to create an image map that meets design requirements   10. Layered objects to create animation frames and exported for animation set up |
| 1. Underpinning Knowledge | * 1. Animation frames creation and exporting procedure   2. Bitmap images embedding, linking and modifying in the file   3. Bitmaps masking and / or adding an opacity mask   4. Color separation setting options   5. Complex shapes creating and editing process   6. Compression options keeping the image quality high and the file size low.   7. cross-media publishing   8. Editing and saving the file   9. Format for the color separation   10. Image map linking process   11. Objects and text editing procedure   12. Overlapping and overprint refining process of objects   13. Print quality setting and process   14. Procedure of Checking and adjusting image quality   15. Proof and separations checking   16. Screen frequency value for the print quality and saving color separation preferences   17. Spot colors combination process |
| 1. Underpinning Skills | * 1. Checking and adjusting image quality where necessary   2. Combining process and spotting colors as required   3. Creating and editing complex shapes   4. Embedding and / or linking bitmap images in the file   5. Layering objects to create animation frames and exporting for animation set up   6. Linking objects to create an image map that meets design requirements   7. Manipulating and editing objects and text according to design brief   8. Masking bitmaps and / or adding an opacity mask   9. Modifying placed bitmaps and / or duplicating according to design requirements   10. Printing final media   11. Selecting web-safe colors for cross-media publishing purposes |
| 1. Resource Implications | The following resources **MUST** be provided:   * 1. Access to relevant workplace or appropriately simulated environment where assessment can take place   2. Materials relevant to the proposed activity or task: Personal computer/laptop, Pens, paper, instruction sheet/manual |
| 1. Methods of Assessment | Competency may be assessed through:   * 1. Direct observations of work activities of the individual member in relation to the work activities of the group   2. Observation of simulation and/or role play involving the participation of individual member to the attainment of organizational goal   3. Written assessment   4. Portfolio |
| 1. Context of Assessment | * 1. Competency assessment may occur in workplace or any appropriately simulated environment   2. Context for Assessment      * 1. Competency may be assessed on the job or simulated environment:   2. Competency may be assessed in workplace or in a simulated workplace setting   3. Assessment shall be observed while task are being undertaken whether individually or in group.   4. Assessment must be undertaken in accordance with Lao PDR CBT Assessment guidelines   5. Assessment shall be observed while task are being undertaken whether individually or in-group |

***UNIT 10 CREATE ANIMATION***

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| **UNIT CODE:** | SSTVET-ICT3310 |
| **UNIT DESCRIPTOR:**  This unit of competency requires the knowledge, skills and attitude of a worker required to apply procedures to ensure that occupational health and safety standards are practiced. | |

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| Elements & Performance Criteria |

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| **ELEMENTS** | **PERFORMANCE CRITERIA**  *(Italicized items are elaborated in the range of variables).* |
| 1. Produce Traditional key poses/ drawings for animation | * 1. All necessary ***materials*** and ***equipment*** to be used are identified and prepared according to the task to be undertaken.   2. All relevant ***key poses/ drawings*** requirements are identified based on the ***source material*** provided.   3. Key drawing ***soundtrack breakdown*** requirements are identified based from the ***storyboard*** and ***exposure sheet***.   4. Key poses/drawings and ***animation*** ***breakdowns*** produced are measured based on the action, drama and staging.   5. Key poses/drawings are ***line tested*** based on timing, acting and movement in the storyboard or layout and exposure sheet   6. Key poses/drawings are produced based on the storyboard, ***layout*** and the exposure sheets.   7. Key poses/drawings of dialogue scenes are produced in sync with the soundtrack breakdown based on the design   8. Key poses/drawings produced are compiled based on the style of the ***model pack.***   9. Non-functioning and missing materials and equipment are reported to ***appropriate personnel*** based on company policy and procedures   10. ***Off model*** key poses/ drawings are returned for revision based on the model sheet provided.   11. Soundtrack is identified and listened to based on the client’s audio track   12. The ***basic principles of animation*** are applied based on the scene action   13. The traditional animation equipment and materials, are identified, traditional key poses/ drawings are produced and edit/revise key poses/drawings.   14. Timing principle is applied based on the scene requirements and animation style.   15. Key poses/drawings that require additional breakdowns and additional timing are supplied by the animator following instructions of the relevant personnel in accordance to scene requirements.   16. Off-sync dialogue segments are adjusted with correct ***mouth openings*** based on audio track and track reading on exposure sheets.   17. Completed revised scene is resubmitted to relevant personnel.   18. Finished scene is submitted to relevant personnel for checking in accordance with company policies and procedures   19. Basic Principles of Physical Science, Mechanics and Kinematics, Human and animal anatomy, ehavioral science, Physics |
| 1. Create tradigital animation | * 1. Animated scene is reviewed through ance with the specified delivery platform   2. Animatics and production technical specifications are discussed with Director/ supervisor based on scene provided   3. Character is animated applying the Principles of Animation based on the storyboard and animatic.   4. Character placement, composition and size comparison are referenced to the digital backgrounds provided by relevant personnel   5. Digital model pack library, digital storyboard are obtained with relevant personnel based on company policies and procedures   6. Lip-synch or sound effects is integrated for dialogue animation if necessary.   7. Materials of the assigned scene are obtained from relevant personnel based on company policies   8. Revised scene is resubmitted to relevant personnel based on company policies and procedures   9. Revision changes are incorporated to the animation in accordance with director’s instruction   10. Revisions are received and discussed with director/ animation supervisor based on scene submitted.   11. Software selected is installed in accord |
| 1. Create 2D digital cut-out animation | * 1. All acquired elements are traced, drawn or built based on given model sheet/poses/drawings.   2. All characters are segmented and grouped according to body parts’ and joints’ parenting structures.   3. All segmented elements are properly labeled with correct naming convention.   4. Animated scene is reviewed through playback to check movements and lipsync   5. Appropriate body parts are selected and substituted from the digital library for the action required in a particular scene.   6. Character turn-around, special effects, props/objects are acquired based on digital model sheet.   7. Complete segmented parts of characters and objects are saved and submitted for final review and approval based on client’s requirements   8. Created 2D digital cut-out animation is saved based on appropriate delivery format.   9. Finished animated scene is submitted to relevant personnel based on company policies and procedures   10. Identify and gather requirements and materials for 2D digital cut-out animation   11. Lipsync or sound effects is incorporated (if necessary) on specific dialogue areas in the scene based on animatics.   12. Materials of the assigned scene are obtained from relevant personnel based on production procedures   13. Required characters, objects/props and background are set-up for the particular scene   14. Revised scene is resubmitted to relevant personnel based on company policies and procedures   15. Revision changes are incorporated to the animation in accordance with director’s instruction   16. Revisions are received and discussed with director/ animation supervisor based on scene submitted   17. Scene is digitally animated using items found in the provided materials based on the animatic or storyboard applying the Principles of animation   18. Segmented elements are colored, saved and backed up in accordance with company SOP |
| 1. Export animation to video file format | * 1. All animation items in the scene to be exported, All elements including audio track are checked and placed in correct layers based on client’s specifications   2. All elements are viewed in accordance to director’s/ client’s viewing requirements.   3. All relevant layers needed are visible in the scene based on client’s specifications   4. Back-ups and extra copies of important images and video files are created on the specific file allocation in accordance to assigned project.   5. Exported animation file is saved in a designated folder   6. File is submitted and informed to relevant personnel.   7. File output is selected as specified in the requirements.   8. Specific delivery platform is identified according to client’s specifications |

**Range of Variables**

| **VARIABLE** | **RANGE** |
| --- | --- |
| 1. Key poses/drawings | 1. Traditional character / Object poses 2. Digital character / Object poses 3. Effects Animation |
| 1. Source material | 1. Animatics 2. Director’s Instruction 3. Exposure Sheet 4. Layout Poses/drawings 5. Model Sheets 6. Scene Folder 7. Soundtrack/ Audio File 8. Storyboard |
| 1. Soundtrack Breakdown | 1. Dialogue Track 2. Sound Effects 3. Background Music 4. Exposure sheet slugging |
| 1. Storyboard | 1. TV series storyboard 2. Film Storyboard 3. Commercial storyboard 4. AVP Presentations storyboard 5. Motion graphics storyboard |
| 1. Exposure sheet | 1. Background shot 2. Breakdown poses/drawings 3. Camera instruction 4. Director's instruction (slugging, thumbnails) 5. In-between poses/drawings 6. Key poses/drawings 7. Mouth opening breakdowns 8. Production details 9. Track reading |
| 1. Materials | 1. Animation Paper 2. Bond Paper 3. Bull Clip 4. Copier Machine Paper 5. Lead Pencils 6. Light Colored Pencils 7. Magic Tape 8. Pegbar 9. Reinforcement Peghole Stickers 10. Rubber/ Kneaded Eraser 11. Ruler 12. Scene folder |
| 1. Equipment | 1. Animation Disc 2. Animation puncher 3. Animation Table 4. Chair 5. Desk Lamp 6. Earphones 7. Internet 8. Lightbox 9. Line Test Machine / Computer 10. Linetest Software 11. Manual/ Electric Sharpener 12. Mirror 13. Photocopy Machine 14. Printer 15. Removable Hard Drive 16. Speakers 17. USB 18. Webcam for linetest |
| 1. Appropriate personnel | 1. Production manager 2. Animation director 3. Production coordinator / Assistants 4. Checkers |
| 1. Layout | 1. Character poses 2. Background setup 3. Field guides / camera instructions |
| 1. Model Pack | 1. Size comparison 2. Character turnarounds 3. Mouth chart 4. Attitude & expressions poses 5. Special effects guide 6. Props 7. Key backgrounds 8. Character construction guide |
| 1. Principles of animation | :   1. Appeal 2. Solid drawing/Dynamic pose (silhouettes, volume) 3. Staging/ composition 4. Exaggeration 5. Anticipation 6. Follow through/overlapping/wave/figure 8 principle 7. Pose to pose / straight ahead 8. Timing with texture/ Spacing/    * Balance    * weight    * body attitude    * line of action 9. Stretch & squash 10. Arcs 11. Secondary action 12. Slow in / slow out |
| 1. Animation breakdown | 1. Arcs 2. Favored drawing 3. Secondary action 4. Mouth shape 5. Eye movement/ position 6. Path of action |
| 1. Line tested | 1. Pencil test machine 2. Flipbook 3. Photoshop CS3 & above |
| 1. Off model | 1. Off proportion 2. Missing details 3. Wrong costume 4. Wrong character 5. Wrong size comparison 6. Size inconsistencies |
| 1. Mouth openings | 1. Phonetics / Visemes 2. Mouth chart A,B,C,D,E, F,G,H 3. Special mouths O,TH, PH etc 4. 1(closed mouth); 2 (half-open mouth); 3 (open mouth) |
| 1. Digital Model pack library | * 1. Character turnarounds   2. Objects /props   3. Size comparison   4. Attitudes and expressions   5. Mouth chart   6. Background reference   7. Effects |
| 1. Materials | * 1. Storyboard (softcopy)   2. Animatics   3. Effects   4. Character parts: eyes, hands, heads, etc   5. Symbols / nodes   6. Storyboard (softcopy) |
| 1. Digital storyboard | * 1. Title, episode, sequence / act   2. Scene elements (background, poses, character, camera movements)   3. Dialogue / audio indication   4. Action notes (time set up, location, action needed) |
| 1. Animatics | May include video of:   * 1. Character movement   2. Camera movement   3. Sequence cut   4. Dialogue cut   5. Time elapse / frame count / FPS   6. Scene/ panel number |
| 1. Production Technical specifications | * 1. Timing   2. Animation style/ movement   3. effects   4. 3D elements |
| 1. Relevant personnel | * 1. Animation Director   2. Production Manager   3. Production Coordinator |
| 1. Software | * 1. Adobe Flash/ animate   2. Toon Boom Harmony   3. Retas Pro   4. TV paint   5. Adobe photoshop |
| 1. Delivery platforms | * 1. .Fla   2. .Swf   3. .Avi   4. .Mp4   5. .Mov   6. Targa   7. .Png   8. Image sequence   9. .gif   10. Other new formats |
| 1. Items | * 1. model pack   2. characters   3. Props / objects |
| 1. Digital backgrounds | May include   * 1. Interior   2. Exterior |
| 1. Principles of Animation | * 1. Appeal   2. Solid drawing/ Dynamic pose (silhouettes, volume)   3. Staging/ composition   4. Exaggeration   5. Anticipation   6. Follow through/ overlapping/wave/figure 8 principle   7. Pose to pose / straight ahead   8. Timing with texture/ Spacing/   + Balance   + weight   + body attitude   + line of action   1. Stretch & squash   2. Arcs   3. Secondary action   4. Slow in / slow out |
| 1. Lipsync | * 1. Phonetics / Visemes   2. Mouth chart A,B,C,D,E, F,G,H   3. Special mouths O,TH, PH etc   4. 1(closed mouth) 2 (half-open mouth) 3 (open mouth) |
| 1. File output | * 1. Video output format   2. Raw files/scene folder |

**EVIDENCE GUIDE**

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| 1. Critical Aspects of Competency | Assessment requires evidence that the candidate:   * 1. Identified traditional animation equipment and materials.   2. Produced traditional key poses/drawings.   3. Edited/revised key poses/drawings.Edited/revised key poses/drawings   4. Identified and gathered requirements and materials for 2D digital cut-out animation.   5. Built digital library of characters and objects   6. Produced 2D digital cut-out animation.   7. Revised/Edit 2D digital cut-out animation   8. Checked all animation items in the scene to be exported.   9. Identified and selected delivery platform to export.   10. Exported and saved digital animation/file output. |
| 1. Underpinning Knowledge | * 1. Production information   2. Verbal Communication, Written Communication   2.3 Physical Science, Mechanics and Kinematics, Human and animal anatomy, Behavioral science, Physics  2.8 Animation principles  2.9 Computer hardware requirements for line-test  2.10 drawing poses and rough expressions  2.11 Body attitude and facial expressions  2.12 Rough breakdowns  2.13 Drawing and breakdown labels  2.14 Understand director’s instructions  2.15 production information  2.16 Linetest software  2.17 Principles and techniques of animation production  2.18 Practicing 3Rs – Reduce, Re-use, Recycle/Recover and environmental concerns  2.19 Statistics for Basic Shapes  2.20 Basic math, Physics, Spatial relationship |
| 1. Underpinning Skills | * 1. Practice of personal hygiene   2. Hazards/risks identification and control skills   3. Interpersonal skills   4. Communication skills |
| 1. Resource Implications | The following resources **MUST** be provided:   * 1. Workplace or assessment location   2. OHS personal records   3. PPE   4. Health records |
| 1. Methods of Assessment | Competency may be assessed through:   * 1. Portfolio Assessment   2. Interview   3. Case Study/Situation |
| 1. Context of Assessment | * 1. Competency assessment may occur in workplace or any appropriately simulated environment.   2. Assessment must be undertaken in accordance with Lao PDR CBT Assessment guidelines   3. Assessment shall be observed while task are being undertaken whether individually or in-group |

***UNIT 11 DEVELOP, MANAGE AND PUBLISH CONTENT ON THE WEBSITE***

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| **UNIT CODE:** | SSTVET-ICT3311 |
| **UNIT DESCRIPTOR:**  This unit of competency requires the knowledge, skills and attitude of a worker required in Javascript. It specifically includes the tasks of understanding Javascript to program the behavior of web pages. | |

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| Elements & Performance Criteria |

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| **ELEMENTS** | **PERFORMANCE CRITERIA**  *(Italicized items are elaborated in the range of variables).* |
| 1. Understand content management concepts | * 1. Content management concepts, process and strategy are understood.      1. Space      2. Materials      3. Equipment      4. Movement      5. Flow of information   2. Models of Communication and Information are explained.   3. Content Styles are understood.   4. Varied Cases, examples are understood and analyzed.   5. The benefits and limitations of open source Content Management Systems are understood.   6. Suitable plugins/modules are chosen   7. CMS web sites and client side functionalities are explored.   8. Maintenance and updates to CMS plugins and modules for security are understood.   9. SEO is understood.   10. Social Media management is understood. |
| 1. Install CMS systems and plug-ins. | * 1. Content Management Systems are Installed, configured and updated.   2. CMS plugins/modules Installed, configured and updated.   3. Custom themes/templates for Content Management Systems are created   4. Custom plugins/modules are created. |
| 1. Develop and Publish web content and graphics. | * 1. The steps and ways to publish a web site are understood.   2. Video Production is performed.   3. Various content are created for the project are produced and published.   4. Animated content   5. Videos   6. Graphics, images   7. Audio   8. Multimedia   9. Text |

Range of Variables

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| 1. Content management (CM) | May Include:   * 1. Collection, retrieval, governance and over-all management of format |
| 1. Format | * 1. Animated content   2. Videos   3. Graphics, images   4. Audio   5. Multimedia   6. Text |

**EVIDENCE GUIDE**

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| 1. Critical Aspects of Competency | Assessment requires evidence that the candidate:   * 1. Over-all CMS concepts and technologies are understood.   2. Content Are development and published   3. CMS Maintenance is performed.   4. Website and content are published. |
| 1. Underpinning Knowledge | Understanding of the ff.:   * 1. Web programming   2. Benefits and limitations of open source Content Management Systems   3. Finding, choose and implement suitable plugins/modules   4. Implementing client side functionalities to CMS web sites   5. Understanding maintenance and updates to CMS plugins and modules for security   6. Understanding the stages of CMS Life cycles:      1. Organization      2. Creation      3. Storage      4. Workflow      5. Editing/Versioning      6. Publishing      7. Removal/Archives |
| 1. Underpinning Skills | * 1. Implemented programming, server side development   2. Coding Skills   3. Creativity   4. Professional ethics   5. Teamwork   6. Integrity   7. Accuracy of data presented |
| 1. Resource Implications | The following resources **MUST** be provided:   * 1. PC or workstation   2. Software, Installers, Internet connection |
| 1. Methods of Assessment | Competency may be assessed through:   * 1. Demonstration   2. Written examination   3. Portfolio Assessment / training Certificates   4. Project Presentation   5. Rubrics |
| 1. Context of Assessment | * 1. Competency assessment may occur in workplace or any appropriately simulated environment.   2. Assessment must be undertaken in accordance with Lao PDR CBT Assessment guidelines   3. Assessment shall be observed while task are being undertaken whether individually or in-group. |

***UNIT 12 DEVELOP WEBSITE USING HTML***

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| **UNIT CODE:** | SSTVET-ICT3312 |
| **UNIT DESCRIPTOR:**  This unit of competency requires the knowledge, skills and attitude of a worker required in HTML. It specifically includes the tasks of understanding HTML, working with HTML organized as a paragraph, list, heading, link, image, multimedia player, form, or one of many other available elements or even a new element. | |

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| Elements & Performance Criteria |

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| **ELEMENTS** | **PERFORMANCE CRITERIA**  *(Italicized items are elaborated in the range of variables).* |
| 1. Understand HTML basics. | * 1. The basics of HTML was identified: elements, attributes, and other terms.   2. The structure of HTML element, page, and basic language features are identified.   3. The Entities & attributes of HTML (Hypertext Mark-up Language) is explained.   4. HTML of a website is written.   5. HTML concepts is implemented.   6. HTML is implemented. |
| 1. Coding HTML | * 1. [HTML forms](http://www.w3schools.com/html/html_forms.asp) are identified.   2. [HTML form elements](http://www.w3schools.com/html/html_form_elements.asp) are used.   3. [HTML input types](http://www.w3schools.com/html/html_form_input_types.asp) are used.   4. [HTML input attributes](http://www.w3schools.com/html/html_form_attributes.asp) are used.   5. HTML Graphics are used.   6. [HTML Media](http://www.w3schools.com/html/html_media.asp) is used. |
| 1. Apply modern design elements and trends | * 1. Web responsiveness is applied.   2. The use of images, videos, product and card designs are implemented.   3. Typography is defined.      1. Different lettering styles are described.      2. Guidelines for print typography is described and applied.      3. The role of typography on the web is described.      4. Guidelines for web typography is described and applied. |

**Range of Variables**

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| 1. Web Entities & attributes | May Include:   * 1. Network Topology   2. Distribution Terminals   3. [HTML Introduction](http://www.w3schools.com/html/html_intro.asp)   4. [HTML Editors](http://www.w3schools.com/html/html_editors.asp)   5. [HTML Attributes](http://www.w3schools.com/html/html_attributes.asp)   6. [HTML Headings](http://www.w3schools.com/html/html_headings.asp)   7. [HTML Paragraphs](http://www.w3schools.com/html/html_paragraphs.asp)   8. [HTML Styles](http://www.w3schools.com/html/html_styles.asp)   9. [HTML Formatting](http://www.w3schools.com/html/html_formatting.asp)   10. [HTML Quotations](http://www.w3schools.com/html/html_quotation_elements.asp)   11. [HTML Comments](http://www.w3schools.com/html/html_comments.asp)   12. [HTML Colors](http://www.w3schools.com/html/html_colors.asp)   13. [HTML CSS](http://www.w3schools.com/html/html_css.asp)   14. [HTML Links](http://www.w3schools.com/html/html_links.asp)   15. [HTML Images](http://www.w3schools.com/html/html_images.asp)   16. [HTML Tables](http://www.w3schools.com/html/html_tables.asp)   17. [HTML Lists](http://www.w3schools.com/html/html_lists.asp)   18. [HTML Blocks](http://www.w3schools.com/html/html_blocks.asp)   19. [HTML Classes](http://www.w3schools.com/html/html_classes.asp)   20. [HTML Layout](http://www.w3schools.com/html/html_layout.asp)   21. [HTML Iframes](http://www.w3schools.com/html/html_iframe.asp)   22. [HTML Head](http://www.w3schools.com/html/html_head.asp)   23. [HTML Entities](http://www.w3schools.com/html/html_entities.asp)   24. [HTML Symbols](http://www.w3schools.com/html/html_symbols.asp)   25. [HTML URL Encode](http://www.w3schools.com/html/html_urlencode.asp) |
| 1. HTML concepts | * 1. Attributes   2. Audio   3. Block Colors   4. Elements   5. Entities   6. Form   7. Formatting   8. Head   9. Headings   10. HTML Editors   11. Images Tables   12. Links   13. Lists   14. Media   15. Object   16. Paragraphs   17. URL Encode   18. Video |
| 1. Software | * 1. Macromedia Dreamweaver   2. Microsoft Front page |
| 1. [HTML Media](http://www.w3schools.com/html/html_media.asp) | * 1. Macromedia Dreamweaver   2. Microsoft Front page   3. Other HTML tool |
| 1. [HTML Graphics](http://www.w3schools.com/html/html_media.asp) | * 1. Google Maps   2. Canvass |

**EVIDENCE GUIDE**

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| 1. Critical Aspects of Competency | Assessment requires evidence that the candidate:   * 1. Explained entities & attributes of HTML (hypertext mark-up language)   2. Implemented HTML concepts   3. Used [HTML form elements](http://www.w3schools.com/html/html_form_elements.asp)   4. Used [HTML input types](http://www.w3schools.com/html/html_form_input_types.asp)   5. Used [HTML input attributes](http://www.w3schools.com/html/html_form_attributes.asp)   6. Used HTML Graphics   7. Used [HTML Media](http://www.w3schools.com/html/html_media.asp)   8. Describe the role of typography on the web.   9. Explained entities & attributes of HTML (hypertext mark-up language) |
| 1. Underpinning Knowledge | * 1. HTML (Hypertext Mark-up Language) on a website   2. [HTML forms](http://www.w3schools.com/html/html_forms.asp)   3. Defining typography   4. Different lettering styles   5. The role of typography on the web |
| 1. Underpinning Skills | * 1. Implemented HTML concepts   2. Used [HTML form elements](http://www.w3schools.com/html/html_form_elements.asp)   3. Used [HTML input types](http://www.w3schools.com/html/html_form_input_types.asp)   4. Used [HTML input attributes](http://www.w3schools.com/html/html_form_attributes.asp)   5. Used HTML Graphics   6. Used [HTML Media](http://www.w3schools.com/html/html_media.asp)   7. Describe the role of typography on the web.   8. Observing netiquette   9. Portfolio Management |
| 1. Resource Implications | The following resources **MUST** be provided:   * 1. PC or workstation   2. HTML, editor |
| 1. Methods of Assessment | Competency may be assessed through:   * 1. Demonstration   2. Written examination   3. Portfolio Assessment / training Certificates   4. Interview   5. Case Study/Situation |
| 1. Context of Assessment | * 1. Competency assessment may occur in workplace or any appropriately simulated environment.   2. Assessment must be undertaken in accordance with Lao PDR CBT Assessment guidelines   3. Assessment shall be observed while task are being undertaken whether individually or in-group |

***UNIT 13 DEVELOP WEBSITE USING CSS***

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| **UNIT CODE:** | SSTVET-ICT3313 |
| **UNIT DESCRIPTOR:**  This unit of competency requires the knowledge, skills and attitude of a worker required in CSS. It specifically includes the tasks of understanding CSS in an HTML document and elements. | |

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| Elements & Performance Criteria |

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| **ELEMENTS** | **PERFORMANCE CRITERIA**  *(Italicized items are elaborated in the range of variables).* |
| 1. Understand CSS in HTML document. | * 1. The basics of HTML was identified: elements, attributes, and other terms.   2. CSS (Cascading Style Sheets) is understood.   3. Role of CSS is explained. |
| 1. Apply CSS | * 1. [HTML forms](http://www.w3schools.com/html/html_forms.asp) are identified.   2. CSS is applied   3. Implemented the basic concepts of CSS.   4. CSS box model and positioning is identified.   5. CSS transition and gradients are explained.   6. 2D/3D transformation and animation is applied.   7. CSS Templates are used. |
| 1. Create CSS Layout | * 1. Apply “no layout”   2. The following:      1. the "display" property      2. margin: auto;      3. max-width      4. the box model      5. box-sizing      6. position      7. position example      8. float      9. clear      10. the clearfix hack      11. float layout example      12. percent width      13. media queries      14. inline-block      15. inline-block layout      16. column      17. flexbox      18. CSS frameworks |
| 1. Work with SASS | * 1. Web responsiveness is applied.   2. Understand SASS ([Syntactically Awesome Style Sheets](http://sass-lang.com/) )   or style sheet language (LESS)   * 1. Work with variables and nesting   2. Experience with related tools. |

**Range of Variables**

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| 1. CSS | May Include:   * 1. Apply Cascading Style Sheets (CSS)   2. Implement the basic concepts of CSS such as:   3. CSS Syntax   4. Id & Class   5. Styling of Backgrounds   6. Text   7. Fonts   8. Links   9. Lists and Tables   10. CSS Border   11. Outline   12. Margin   13. Padding   14. Dimension   15. Positioning   16. Floating   17. Align   18. Colours   19. Colour HEX   20. Implement CSS usage:   21. Macromedia Dreamweaver / Microsoft FrontPage |
| 1. CSS Layouts | * + 1. the "display" property     2. margin: auto;     3. max-width     4. the box model     5. box-sizing     6. position     7. position example     8. float     9. clear     10. the clearfix hack     11. float layout example     12. percent width     13. media queries     14. inline-block     15. inline-block layout     16. column     17. flexbox |

**EVIDENCE GUIDE**

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| 1. Critical Aspects of Competency | Assessment requires evidence that the candidate:   * 1. Explained entities & attributes of HTML (hypertext mark-up language)   2. Implemented HTML concepts   3. Used CSS   4. Identified CSS box model and positioning, CSS transition and gradients.   5. Applied 2D/3D transformation and animation.   6. Used CSS Templates. |
| 1. Underpinning Knowledge | Understanding of the ff.:   * 1. CSS (Cascading Style Sheets), role and concepts.   2. CSS box model and positioning, CSS transition and gradients.   3. 2D/3D transformation and animation.   4. CSS Templates   5. CSS designs:      1. Apply “no layout”      2. The following:      3. the "display" property      4. margin: auto;      5. max-width      6. the box model      7. box-sizing      8. position      9. position example      10. float      11. clear      12. the clearfix hack      13. float layout example      14. percent width      15. media queries      16. inline-block      17. inline-block layout      18. column      19. flexbox      20. CSS frameworks      21. SASS (Syntactically Awesome Style Sheets or style sheet language (LESS)      22. Work with variables and nesting      23. Experience with related tools |
| 1. Underpinning Skills | * 1. Implemented CSS concepts   2. Used [CSS form elements](http://www.w3schools.com/html/html_form_elements.asp) |
| 1. Resource Implications | The following resources **MUST** be provided:   * 1. PC or workstation   2. Implemented HTML concepts   3. CSS |
| 1. Methods of Assessment | Competency may be assessed through:   * 1. Demonstration   2. Written examination   3. Portfolio Assessment / training Certificates   4. Interview   5. Case Study/Situation   6. Project Presentation |
| 1. Context of Assessment | * 1. Competency assessment may occur in workplace or any appropriately simulated environment.   2. Assessment must be undertaken in accordance with Lao PDR CBT Assessment guidelines   3. Assessment shall be observed while task are being undertaken whether individually or in-group |

***UNIT 14 LEAD SMALL TEAMS IN THE ICT WORKPLACE***

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| **UNIT CODE:** | SSTVET-ICT3314 |
| **UNIT DESCRIPTOR:**  This unit of competency requires the knowledge, skills and attitude of a worker to lead and develop small teams to achieve designated assignment instructions or goals, and to set and maintain team and individual or team standards, facilitate open communication and resolve team concerns. | |

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| Elements & Performance Criteria |

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| **ELEMENTS** | **PERFORMANCE CRITERIA**  *(Italicized items are elaborated in the range of variables).* |
| 1. Facilitate team planning | * 1. English communication is applied in the workplace.   2. Work information and requirements are identified and presented to team members   3. The purpose of instructions and requirements are relayed or properly communicated to team members   4. he team members’ queries and concerns are recognized, discussed and dealt with |
| 1. Assign responsibilities | * 1. Individual and team purpose, roles, duties, and responsibilities are clarified and delegated in consideration with the skills, knowledge and aptitude needed for the delivery of the assigned task, and in according to company policies, goals and objectives.   2. The duties are assigned having regard to individual preferences, as well as domestic and personal considerations, whenever possible. |
| 1. Set performance expectations for team members | * 1. Team effort is rewarded and support provided to develop mutual concern and camaraderie and to maximize benefit from team diversity.   2. Performance expectations are established based on client needs and according to assignment requirements   3. Performance expectations are based on individual team members duties and area of responsibility   4. Performance expectations are discussed and disseminated to individual team members |
| 1. Monitor team performance | * 1. The duties, rosters and responsibilities are assesses against a matched team capabilities in accordance with legislative and organizational requirements.   2. The team members are provided with feedback, positive support and advice on strategies to overcome any deficiencies   3. Performance issues which cannot be rectified or addressed within the team are referenced to appropriate personnel according to employer policy.   4. Constructive feedback on quality of performance is regularly provided to team members for integration into work practice.   5. Team concerns are acknowledged and addressed as required and wherever possible discussed and resolved within the team   6. The team’s operations are monitored to ensure that employer/client needs and requirements are met |

**Range of Variables**

|  |  |
| --- | --- |
| 1. Work requirements | * 1. Job description   2. Assignment instructions   3. Client Profile |
| 1. Team member’s concerns | * 1. Roster/shift details   2. Work Schedule |
| 1. Monitor performance | * 1. Formal process of evaluative information and corrective action   2. Informal process |
| 1. Feedback | * 1. Formal process of providing   2. Informal process |
| 1. Performance issues | * 1. Work output   2. Work quality   3. Team participation   4. Compliance with workplace **Protocols**   5. Safety   6. Customer service |

**EVIDENCE GUIDE**

|  |  |
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| 1. Critical Aspects of Competency | Assessment requires evidence that the candidate:   * 1. Clearly defined and communicated les and responsibilities, assignment instructions and organizational goals and objectives to individual and team members. Maintained or improved individuals and/or team performance given a variety of possible scenario   2. Assessed and monitored team and individual performance against set criteria.   3. Represented concerns of a team and individual to next level of management or appropriate specialist and to negotiate on their behalf   4. Assigned duties and responsibilities, having regard to individual’s knowledge, skills and aptitude and the needs of the tasks to be performed   5. Set and communicated performance expectations for a range of tasks and duties within the team and provided feedback to team members |
| 1. Underpinning Knowledge | * 1. Knowledge and understanding of Company policies and procedures   2. Relevant legal requirement   3. How performance expectations are set   4. Methods of Monitoring Performance   5. Client expectations   6. Team member’s duties and responsibilities |
| 1. Underpinning Skills | * 1. Communication skills required for leading teams   2. Informal performance counseling skills   3. Team building skills   4. Negotiating skills: conflict resolution and negotiation techniques   5. Use coaching and mentoring skills to provide support and build effective workplace relationship   6. Interpersonal techniques including active listening   7. Accurately maintain records and documentation. |
| 1. Resource Implications | The following resources **MUST** be provided:   * 1. Access to relevant workplace or appropriately simulated environment where assessment can take place   2. Materials relevant to the proposed activity or task |
| 1. Methods of Assessment | Competency may be assessed through:   * 1. Direct observations of work activities of the individual member in relation to the work activities of the group   2. Observation of simulation and/or role play involving the participation of individual member to the attainment of organizational goal   3. Case studies and scenarios as a basis for discussion of issues and strategies in teamwork |
| 1. Context of Assessment | * 1. Competency assessment may occur in workplace or any appropriately simulated environment   2. Context for Assessment   3. Competency may be assessed on the job or simulated environment:   4. Competency may be assessed in workplace or in a simulated workplace setting   5. Assessment shall be observed while task are being undertaken whether individually or in group.   6. Assessment must be undertaken in accordance with Lao PDR CBT Assessment guidelines   7. Assessment shall be observed while task are being undertaken whether individually or in-group |

***UNIT 15 USE RELEVANT INFORMATION AND COMMUNICATIONS TECHNOLOGIES TO ATTAIN SUSTAINABLE DEVELOPMENT***

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| **UNIT CODE:** | SSTVET-ICT3315 |
| **UNIT DESCRIPTOR:**  This unit of competency requires the knowledge, skills and attitude of a worker required in selecting, sourcing and applying appropriate and affordable technologies in the workplace | |

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| Elements & Performance Criteria |

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| **ELEMENTS** | **PERFORMANCE CRITERIA**  *(Italicized items are elaborated in the range of variables).* |
| 1. Select appropriate technology | * 1. Usage of different ICTs is determined based on job requirements   2. Appropriate technology is selected as per work specification |
| 1. Apply relevant technology | * 1. Relevant technology is effectively used in carrying out function   2. Applicable software and hardware are used as per task requirement   3. Management concepts are observed and practiced as per established industry practices |

**Range of Variables**

|  |  |
| --- | --- |
| 1. Technology | May include the following but not limited to:   * 1. ICT   2. Office technology   3. Industrial technology   4. System technology   5. Information technology   6. Training technology |
| 1. Management concepts | May include but not limited to:   * 1. Real Time Management   2. KAIZEN or continuous improvement   3. 5S   4. Total Quality Management   5. Other management/productivity tools. |

**EVIDENCE GUIDE**

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| 1. Critical Aspects of Competency | Assessment requires evidence that the candidate:   * 1. Selected appropriate technology consistent with work requirements   2. Applied relevant technology   3. Maintained and enhanced operative ability of relevant technology |
| 1. Underpinning Knowledge | * 1. Awareness on ICTs and its function   2. Repair and maintenance procedure   3. Operating instructions   4. Applicable software   5. Communication techniques   6. Health and safety procedure   7. Company policy in relation to relevant technology   8. Different management concepts   9. Technology adaptability |
| 1. Underpinning Skills | * 1. Relevant technology application/implementation   2. Basic communication skills   3. Software applications skills   4. Basic troubleshooting skills |
| 1. Resource Implications | The following resources **MUST** be provided:   * 1. ICTs   2. Relevant technology /ICTs   3. Interview and demonstration questionnaires   4. Assessment packages |
| 1. Methods of Assessment | Competency may be assessed through:   * 1. Portfolio Assessment / training Certificates   2. Interview   3. Case Study/Situation |
| 1. Context of Assessment | * 1. Competency assessment may occur in workplace or any appropriately simulated environment.   2. Assessment must be undertaken in accordance with Lao PDR CBT Assessment guidelines   3. Assessment shall be observed while task are being undertaken whether individually or in-group |

# List of Tools and Equipment

1. **Hardware (Class size: 20 trainees/student)**

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| --- | --- | --- |
| **Sr. No.** | **Name of Equipment / Tools** | **Qty.** |
| 1. | Laptop: Latest Processor with licensed Operating System and Antivirus. | 1 |
| 2. | File server | 1 |
| 3. | LAB should have Structured cabling | 1 |
| 4. | Workstation/ Nodes (computer) with wired and wireless card (built-in) | 20 |
| 5. | Workstation for Multimedia | 1 |
| 6. | 24 Port switch with wireless connectivity | 1 |
| 7. | RJ 45 Connectors | 1 |
| 8. | Internet or Intranet Connectivity | 1 |
| 9. | On-Line UPS | 1 |
| 10. | Printer | 1 |
| 11. | Scanner | 1 |
| 12. | Web cam (digital camera) | 20 |
| 13. | DVD or BLU-RAY Disc | 2 |
| 14. | Pen-drive | 20 |
| 15. | External Hard disks | 4 |
| 16. | DSL Wireless Router | 1 |
| 17. | Wireless Router | 5 |
| 18. | Wireless LAN Card | 20 |
| 19. | LCD Projector | 2 |
| 20. | Well equip computer lab with Multimedia Projector | 1 |
| 21. | Well equip class room with Multimedia Projector | 1 |
| 22. | Tool box | 5 sets |
| 23. | USB Floppy Drive | 1 |
| 24. | Network Switch | 5 |
| 25. | Router | 5 |
| 26. | UTP Cables | 1 box |
| 27. | Crimping Tools | 10 pcs |
| 28. | Network Tester | 5 sets |

1. **Software** 
   1. Professional Office (MS Office, Open Office)
   2. Text, Word processor, C compiler
   3. Antivirus Software - Server Edition for Servers and Client Edition for Workstations
   4. Operating System (Windows, Linux)
   5. Web/Internet Browsing software
   6. AutoCAD
   7. Graphics Software (MS Paint, Open Office, Other )
   8. Online Application Software
   9. Visual Studio.Net (Latest version) OR Visual Web Developer (Latest version)
   10. PHP (Latest version)
   11. PHP Storm (Latest version)
   12. MySQL and SQL Server (Latest version)
   13. Macromedia Dreamweaver (Latest version)
   14. Adobe Muse (Latest version)
   15. Adobe Photoshop (Latest version)
   16. Microsoft FrontPage & Microsoft Publisher (Latest version)
   17. Microsoft Office (Latest version

NOTE: Latest version of hardware and software should be provided.

Developed by:

**DR. Mayra Christina M. Ambrocio**

Skills Standards, Curriculum and Training Material Development Expert

IT Electronics/Multimedia and Graphic Design/IT Networking (International)

Annex:

## Competency Standard Development Team

***SSTVET Project***

|  |  |  |  |
| --- | --- | --- | --- |
| No. | Name and Surname | Organization/Company | Job Expert |
|  | DR. MAYRA CHRISTINA M. AMBROCO | SSTVET Project | International Consultant in Information Technology |
|  | MR. NGAVISETH PHOMVHONGSA | VIENTIANE-HANOI FRIENDSHIP TECHNICAL VOCATIONAL COLLEGE (VHFTVC) | National Consultant in Information Technology |

***Resource Person / Methodologist***

|  |  |  |  |
| --- | --- | --- | --- |
|  | MR.BOUNTHAM SITTHIMANUOTHAM | SSTVET Project | M&E Specialist |
|  | MS. SOMPHALANG NGONPHETSY | VEDI | Head of Curriculum Development Section |
|  | MRS. ANGKHASAYA SISOUPHANH | TVED, MoES | Deputy of M&E Division |

***Resource Persons / Company & Industry***

|  |  |  |  |
| --- | --- | --- | --- |
|  | MR. KHAMLA SOURIYASACK | APIS | General Manager |
|  | MR. SORADETH VORAVONG | DATACOM | Head of Sales |
|  | MR.PONGSATHORN RATCHADAPISIT | CISCO SYSTEM | Account Manager |
|  | MR. CHANTHIUM RATHAHAO | SISAVATH PRINTING PRESS | Managing Director |
|  | MR. PHANTHASONE SITHISACK | LAOTELECOM | IT Engineer |
|  | MR. NAJIB RAHMAT | WIMPELCOM LAO CO. LTD. | Senior IT Infrastructure and Financial Systems Manager |
|  | MS. VILAYSONE | MAHAXAY | HR Oficer |
|  | MR.ALEXSAY SYPHONE | LAOCERT | IT Officer |

***Resource Persons / Public & Private TVET Institutions***

|  |  |  |  |
| --- | --- | --- | --- |
|  | MS. DAVONE KOMMANIVONE | VOCATIONAL EDUCATION DEVELOPMENT INSITUTE (VEDI) | Teacher – IT Department |
|  | MR. SONEXAY PHANTHAVONG | VIENTIANE-HANOI FRIENDSHIP TECHNICAL VOCATIONAL COLLEGE (VHFTVC) | Deputy Director |
|  | MR. SENGALOUN THAMMAVONGSA | VIENTIANE-HANOI FRIENDSHIP TECHNICAL VOCATIONAL COLLEGE (VHFTVC)) | Teacher – IT Department |
|  | Mr. KHOUNMY SOUVANTHA | PAKPASAK TECHNICAL COLLEGE (PSTC) | Teacher – IT Department |
|  | MR. VONGDAOPHETH  RASABOUTH | PAKPASAK TECHNICAL COLLEGE (PSTC) | Teacher – IT Department |
|  | MS. MALOYEE PHOUMYASEN | VIENTIANE PROVINCE | Teacher – IT Department |
|  | MR.THAVONE PHONNOUNSY | SAVANNAKHET TECHNICAL VOCATIONAL COLLEGE (STVC) | Teacher – IT Department |
|  | MR. SOUKOUTHAI KEOMANISAY | SAVANNAKHET TECHNICAL VOCATIONAL COLLEGE (STVC | Teacher – IT Department |
|  | MR. SYTHONG BOUNCHALEUN | POLYTECHNIC COLLEGE (PTC) | Teacher – IT Department |
|  | MR.KHANSAVANG CHANTHACHACK | CHAMPASAK TECHNICAL VOCATIONAL COLLEGE (CTVC) | Vice Director |
|  | MR.THONECHANH PHOTHISAN | CHAMPASAK TECHNICAL VOCATIONAL COLLEGE (CTVC) | Teacher – IT Department |
|  | MR. SAYSOMBATH VONGPHOUSAY | CHAMPASAK TECHNICAL VOCATIONAL COLLEGE (CTVC) | Teacher – IT Department |