GUJARAT TECHNOLOGICAL UNIVERSITY

Syllabus for Bachelor of Vocation (B.Voc), 6th Semester
Branch: Software Development
Subject Name: Master Trainer for Software Developer
On-Job Training (Elective)
Subject Code: 21160207

Type of course: On-Job Training (Elective)

Prerequisite: NA

Rationale :- On-job training, also known as OJT, is a hands-on method of teaching the skills, knowledge, and competencies needed for students to perform a specific task within the workplace. Students learn in an environment where they will need to practice the knowledge and skills obtained during their training.

Teaching and Examination Scheme:

Teaching Scheme			Credit	Examination Marks				Total Marks
				Theory Marks		Practical Marks		
L	T	P	C	ESE (E)	PA(M)	ESE(V)	PA(I)	
0	0	15	15	0	0	100	100	200

L- Lectures; T- Tutorial/Teacher Guided Student Activity; P- Practical; C- Credit; ESE- End Semester Examination; PA- Progressive Assessment

OJT Hands on Exercise/Training:

Sr. No.	Training / Hands on Exercise	Hrs.
1	**Assist in performing software construction and software testing entry-level tasks in the IT Services industry** PC1. Demonstrate basic computer and internet literacy including operating a computer, describing its major components and how they work, using Windows and Linux OS, operating a browser, searching the internet, managing mails and using social internet media. PC2. Demonstrate aptitude for analyzing information and making logical conclusions. PC3. Demonstrate knowledge of the foundational mathematical concepts in computing. PC4. Design algorithms to solve problems and convert them into code using theappropriate programming language constructs. PC5. Read and execute a test case and record the outcome in the appropriate template. PC6. Be able to communicate effectively with appropriate people w.r.t. assigned roles insimple English – both oral and written.	50
	Employ Programming Lab Oriented Pedagogical Skills as a Master Trainer in the IT Industry PC1. Plan for necessary laboratory infrastructure before conduct of a session PC2. draw out an appropriate training schedule according to the learning objectives to bemet by considering a blend of appropriate instructional modes and the expected deliverables PC3. plan for standard lab sessions aligned with theory sessions to achieve the set learning objectives PC4. design structured problems with pre-determined solutions for trainees to learn problem solving, logical thinking and information analysis PC5. design semi-structured or unstructured problems with multiple solutions	

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2	aimed at inculcating the culture of inquiry and discovery PC6. teach programming concepts by demonstrating how they work and ensure students solve problems progressively by applying concepts learnt each day PC7. facilitate practice on the application of foundational mathematical concepts in computing and organize activities to enhance problem comprehension skills, in the form of Input-Process-Output cycles PC8. impart training on how to design solutions to problems using flow charts or pseudo code, and how to convert them into code using suitable IT industry standard computer programming language constructs PC9. ensure observation by inculcating the process of performing dry run, read &execute test cases and record the outcomes in IT Industry standard templates PC10. provide exercises for code reading to expose trainees to different styles of programming, logic and program constructs PC11. introduce trainees to simple programming testing tools/ testing environment so as to expose them to the concepts of testing PC12. Instruct trainees on the significance of IT Business skills and Professional Competence. Imbibe the importance of being time bound on completing all lab assignments and projects PC13. ensure appropriate IT Industry specific documents and logs are maintained by trainees to capture planned work and actual work done including time lines PC14. ensure trainees are encouraged to use social internet media extensively to gather information PC15. Define criteria and mechanism for trainee evaluation and feedback. Assess trainees' performance on a continuous basis with a holistic perspective, capture and tabulate the same to bring about meaningful revelation and interpretation PC16. Analyze and take responsibility of trainees' performance and roll out appropriate lab assignments to ensure performance improvement.	70
3	**Engage Pedagogical Skills as a Master Trainer** PC1. design a curriculum based on a need and design a delivery plan in the light of a prescribed curriculum keeping in mind the available instructional modes and the relevantstandards PC2. clearly state the training objectives to the trainees PC3. design outcome based formative and summative assessments by using appropriatetools to design, deliver and share subject knowledge with students PC4. present concepts with clarity and goodcommunication skills PC5. implement innovative training methodologies to impart skills PC6. capture performance using various parameters bringing a holistic perspective anduse basic computer skills to carry out evaluations and maintain reports PC7. be flexible and customize training modules, schedules and sessions when necessary PC8. develop learning strategies to support individual learner's needs, abilities andcircumstances PC9. be future-focused and continuously review training curriculum to keep pace with technological changes and cutting-edge industry practices PC10. frame means to help and encourage slow learners cope to meet expectations and provide constructive feedback in an assertive manner so as to bring about change for the better	50

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	PC11. take ownership and responsibility for your trainees' behavior and performance and scrutinize performance of trainees to infer capabilities of trainees and mentor and guide them accordingly PC12. schedule corrective sessions to ensure learning objectives are met by all	
4	**Manage your work to meet requirements** PC1. establish and agree your work requirements with appropriate people PC2. keep your immediate work area clean and tidy PC3. utilize your time effectively PC4. use resources correctly and efficiently PC5. treat confidential information correctly PC6. work in line with your organization's policies and procedures PC7. work within the limits of your job role PC8. obtain guidance from appropriate people, where necessary PC9. ensure your work meets the agreed requirements	5
5	**Work effectively with colleagues** PC1. Communicate with colleagues clearly, concisely and accurately PC2. Work with colleagues to integrate your work effectively with them PC3. Pass on essential information to colleagues in line with organizational requirements PC4. work in ways that show respect for colleagues PC5. carry out commitments you have made to colleagues PC6. let colleagues know in good time if you cannot carry out your commitments,explaining the reasons PC7. identify any problems you have working with colleagues and take the initiative tosolve these problems PC8. follow the organization's policies and procedures for working with colleagues PC9. provide complete, accurate and up-to-date data/information to the appropriatepeople in the required formats on time	5
6	**Maintain a healthy, safe and secure working environment** PC1. comply with your organization's current health, safety and security policies and procedures PC2. report any identified breaches in health, safety, and security policies and procedures to the designated person PC3. identify and correct any hazards that you can deal with safely, competently and within the limits of your authority PC4. report any hazards that you are not competent to deal with to the relevant person in line with organizational procedures and warn other people who may be affected PC5. Follow your organization's emergency procedures promptly, calmly, and efficiently PC6. identify and recommend opportunities for improving health, safety, and security to the designated person PC7. complete any health and safety records legibly and accurately	5
7	**Provide data/information in standard formats** PC1. Establish and agree with appropriate people the data/information you need to provide, the formats in which you need to provide it, and when you need to provide it PC2. obtain the data/information from reliable sources	5

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	PC3. check that the data/information is accurate, complete and up-to-date PC4. obtain advice or guidance from appropriate people where there are problems withthe data/information PC5. carry out rule-based analysis of the data/information, if required PC6. insert the data/information into the agreed formats PC7. check the accuracy of your work, involving colleagues where required PC8. report any unresolved anomalies in the data/information to appropriate people PC9. provide complete, accurate and up-to-date data/information to the appropriatepeople in the required formats on time	
8	**Develop your knowledge, skills and competence** PC1. obtain advice and guidance from appropriate people to develop your knowledge,skills and competence PC2. identify accurately the knowledge and skills you need for your job role PC3. identify accurately your current level of knowledge, skills and competence and anylearning and development needs PC4. agree with appropriate people a plan of learning and development activities toaddress your learning needs PC5. undertake learning and development activities in line with your plan PC6. apply your new knowledge and skills in the workplace, under supervision PC7. obtain feedback from appropriate people on your knowledge and skills and howeffectively you apply them PC8. review your knowledge, skills and competence regularly and take appropriateaction	10
	Total	200

Course Outcomes:

Sr.No.	CO Statement	Marks % Weightage
CO-1	Understand and learn to engage Pedagogical Skills as a Master Trainer	30
CO-2	Understand and learn to manage work to meet requirements	20
CO-3	Understand to work Work effectively with colleagues	30
CO-4	Learn to Maintain a healthy, safe and secure working environment	20

Reference:
- https://nsdcindia.org/sites/default/files/QP_SSC-Q0509_Master-Trainer-for-Software-Developer.pdf