

**YTC CRITICAL THINKING RUBRIC Instructor: Gopal Mohan Course: CPE 224 System Troubleshooting Semester Spring**

	<b>Advanced - 4</b>	<b>Competent - 3</b>	<b>Developing - 2</b>	<b>Elementary - 1</b>	<b>Score ____</b>
<b>Identify</b>	Student is able to autonomously analyze the behavior of computer systems from hardware, software, and in all interdependent perspectives; synthesizes this system behavior to provide evidence in support of the correct diagnosis in order to troubleshoot the system.	Student is competent in analyzing the behavior of computer systems from hardware, software, and in all interdependent perspectives; Student needs some minimal assistance with the synthesis of system behavior with diagnostic procedures related to diagnosis.	Student needs assistance with both the basic system behavior and with connecting system behavior with the problem at hand. Difficulty experienced with diagnostic procedures correlation.	Student requires significant support in all aspects of distinguishing the various basic and systems behavior. Unable to provide diagnostic procedure correlation.	
<b>Gather</b>	Student is able to acquire information from the user/customer concerning the nature of the problem. Further, from bench test, student learns more about the problem at hand and the symptoms it is showing.	Student needs guidance with connecting the stated customer concern with what is gathered from bench test such as focusing on the issue and to not do unnecessary dismantling of subsystems which could cause additional problems.	Student needs pointers for effective interaction with user/customer such as waiting for the customer to relate all they have observed. Student also needs help with the selection of relevant subsystems in the subsequent bench test.	Student needs to be shown how to interact with user/customer in a productive way, such as, effective listening and not to verbalize their (student) thoughts that might cloud customer narration. Student needs to be shown the preliminary steps in bench test such as identification of subsystems to be tested based on customer input.	
<b>Examine</b>	Student uses the physical (visual, auditory, touch, and smell) senses before proceeding. Asks key questions of system use from relevant parties, if necessary. Student arrives at a diagnostic scheme.	Student is able to proceed on their own during the initial examination phase. Student needs help with further tests such as testing of related subsystems and with user inquiry, if necessary, such as questions that will help confirm the diagnosis.	Student needs a significant help in information gathering such as relating sensory input to symptoms, formulation of these symptoms and help with inquiring the customer for further input, if such input is necessary.	Student needs step-by-step assistance with information gathering, such as, relating sensory- input findings to symptoms and the formulation of these symptoms. Student also needs explanation of how this information is relevant. Student is unable and needs pointers in pursuing further customer input.	

<b>Formulate</b>	Student does an analysis of the expected areas of trouble and makes a preliminary judgement regarding whether it is a hardware or software issue.	Student is able to analyze expected areas of trouble. Student needs some minimal assistance in judging whether it is a hardware or software issue.	Student with substantial assistance is able to analyze the issue. Student is unable to clearly differentiate between hardware and software issues.	Student needs assistance in the step by step analysis of the trouble at hand. Student is unable to apply available information to arrive at a scheme toward solving the problem.	
<b>Apply</b>	Student applies the necessary diagnostic criteria based on the above formulation to pinpoint the location of the trouble and if necessary, revise the diagnosis. Student proceeds to execute the repair based on these findings.	Student with minimal assistance is able to apply the diagnostic criteria to pinpoint the trouble. Student is able to proceed to execute the repair.	Student provided with a step by step plan is able to apply the diagnostic criteria toward arriving at a resolution. Student requires significant support.	Student needs to be shown how to apply the diagnostic criteria and guided through to pinpoint the trouble and the necessary repair. Student shows lack of application skills.	
<b>Evaluate</b>	Student verifies that the diagnosis and fix for the problem has resulted in the proper operation of the system.	Student is able to verify system operation, but needs minimal assistance in the clarification of the final resolution.	Student needs assistance in verifying whether the attempted repair has resulted in the expected fix to the problem.	Student is unable to demonstrate or state how the repair resulted in the fixing of the problem.	