

Final Gap Analysis Report--2004

In the Original Curriculum Crosswalk of the A+ Certification training program at Cascades Job Corps Center, I chose to skip the following skills from the checklist:

- A. No skills were skipped in the Perform Troubleshooting portion
- B. B4 and B9 were in the Customer Service portion.
- C. C3 and C9 in Hardware and Software Maintenance and Installation segment.
- D. No skills were skipped in the Monitoring and Maintenance skills section.

When matching with the Market Analysis Survey I conducted at Boeing, Cascades, and ESD #189 on an Excel Spreadsheet, I found the following positive information In all of the areas listed below for both Employability and Technical Skills, that most of the skills from Work task A-D were equal in importance or somewhat important between each respondent and Cascades, There were some areas that were more important at Cascades. It appears that most of the skill areas are being covered by Cascades training program.

This report includes information about my Market Analysis meetings with and Gap Analysis for:

- I. **Boeing Network Security Specialist—August 2004**
 - II. **Cascades Network Support Specialist—September 2004**
 - III. **ESD #189 Technical Support Specialists—September 2004**
- And**
- IV. **Correlation of Gaps for all respondents**

I. Boeing Network Security Specialist—August 2004

On the negative side I found that the following areas needed varying degrees of attention for the prospective employee of Boeing.

A. Perform Trouble Shooting

Key Activity: A4. Manage problem resolution

Employability Skill: **create original documents and detailed supporting documents (minor)**

B. Customer Service

Key Activity: B4. Act as liaison between groups

Employability Skills: **analyze group responses; detect underlying issues; compare multiple viewpoints; * summarize/paraphrase information, and encourage cooperation/negotiation.**

Key Activity: B7. Solicit customer feedback and apply input to improve quality of service

Employability Skills: **develop recommendations based on information; select/obtain data/information relevant to the task**

Technical Skills: **analyze and interpret expressed and implied needs**

Key Activity: B9. Manage customer experience and satisfaction through multiple tiers of the escalation process

Employability Skills: **be an advocate for customers within the organization; explain and present technical concepts and issues; evaluate quality and effectiveness of processes.**

C. Hardware and Software Maintenance and Installation

Key Activity: C3. Develop installation plan

Employability Skills: **generate solutions and devise action plans; create detailed supporting documents; interpret, synthesize and summarize information; respond to customer needs and demonstrate commitment to customer; interpret and clarify communication; prioritize tasks, prepare schedules and monitor task sequences.**

Technical Skills: **utilize and create technical documentation; knowledge of system network security; Knowledge of recovery theories and practices.**

Key Activity: C9. Develop contingency and recovery plans

Employability Skills: **create detailed supporting documentation; identify contingencies and propose appropriate steps for system recovery.**

Technical Skills: **Knowledge of data assurance and data security techniques and practices; knowledge of connectivity theories and practices; knowledge of hardware, software and networks; and of contingency and recovery planning theories and practices.**

D. Perform System Operations, Monitoring and Maintenance

Key Activity: D7. Make recommendations to address recurring customer issues

Employability Skills: **Ability to analyze, summarize and present information to a variety of audiences (Minor difference)**

This information will be assessed at the end of this report to determine if this is a consistent pattern.

II. Cascades Network Support Specialist—September 2004

This is the list of needs identified by the Cascades respondent that were different from the Cascades Curriculum Crosswalk:

A. Perform Trouble Shooting

Key Activity: A2. Query existing knowledge base

Employability Skills: Ability to interpret and summarize information. (Minor difference)

B. Customer Service

Key Activity: B4. Act as liaison between groups

Employability Skills: Ability to analyze group responses; detect underlying issues; compare multiple viewpoints, to summarize/paraphrase information, to encourage cooperation/negotiation.

Technical Skills: Knowledge of each group's functions and responsibilities, and ultimate goal.

Key Activity: B7. Solicit customer feedback and apply input to improve quality of service

Employability Skills: Ability to develop recommendations based on information; summarize/integrate and present information; actively participate in discussions and present complex technical information; and select/obtain data/information relevant to the task.

Technical Skills: Ability to analyze and interpret expressed and implied needs

Key Activity: B9. Manage customer experience and satisfaction through multiple tiers of the escalation process "Resolving customer issues was recognized as being the most important skill related to this list"

Employability Skills: Ability to be an advocate for customers within the organization; explain and present technical concepts and issues; evaluate quality and effectiveness of processes; and identify and resolve customer issues to established and expected levels of service

Technical Skills: Knowledge of quality indicators relating to customer satisfaction; ability to communicate complex technical issues and business implications

C. Hardware and Software Maintenance and Installation

Key Activity: C3. Develop installation plan

Employability Skills: Ability to create detailed supporting documents; interpret, synthesize and summarize information; interpret and clarify communication; and prioritize tasks, prepare schedules and monitor task sequences.

Key Activity: C9. Develop contingency and recovery plans

Employability Skills: Ability to create detailed supporting documentation; identify contingencies and propose appropriate steps for system recovery

Technical Skills: Knowledge of data assurance and data security techniques and practices; knowledge of connectivity theories and practices; knowledge of hardware, software and networks; knowledge of contingency and recovery planning theories and practices.

D. Perform System Operations, Monitoring and Maintenance

Key Activity: D5. Evaluate maintenance processes and outcomes

Employability Skills: Ability to analyze and summarize information and identify interdependencies. Ability to compare multiple viewpoints; pose critical questions; identify own strengths/limitations and accept constructive criticism.

Technical Skills: Knowledge of preventative maintenance procedures and processes; knowledge of company practices for maintenance; knowledge of practices of internal, external and global customers; knowledge of evaluation documentation procedures; knowledge of relevant sources for evaluation input.

Key Activity: D8. Make recommendations and support internal processes and operations

Employability Skills: Ability to identify and implement needed improvements; monitor operational effectiveness; and to communicate changes in support of internal processes

Technical Skills: Knowledge of technical support operations, issues and constraints Ability to research and evaluate software and hardware options Knowledge of business issues regarding software licensing

III. ESD #189 Technical Support Specialists—September 2004

Needs identified by ESD #189 that were different from the Cascades Curriculum Crosswalk.

A. Perform Trouble Shooting

Key Activity: A2. Query existing knowledge base

Employability Skills: Ability to use written and electronic documentation; and interpret and summarize information.

B. Customer Service

Key Activity: B1. Gather and analyze customer input

Employability Skill: Ability to contribute to an open communication environment (Minor)

Key Activity: B4. Act as liaison between groups

Employability Skills: Ability to compare multiple viewpoints, and to encourage cooperation/negotiation

Technical Skills: Knowledge of organizational communication processes (Minor)

Key Activity: B7. Solicit customer feedback and apply input to improve quality of service

Employability Skill: Ability to select/obtain data/information relevant to the task.

Technical Skills: Knowledge of continuous quality improvement (Minor)

Key Activity: B9. Manage customer experience and satisfaction through multiple tiers of the escalation process

Employability Skills: Ability to be an advocate for customers within the organization; evaluate quality and effectiveness of processes; prioritize tasks, prepare schedules and monitor task sequences; and respond to customer needs and demonstrate commitment to customer.

Technical Skills: Ability to communicate complex technical issues and business implications.

C. Hardware and Software Maintenance and Installation

Key Activity: C3. Develop installation plan

Employability Skills Ability to generate solutions and devise action plans and interpret, synthesize and summarize information; to prioritize tasks, prepare schedules and monitor task sequences; and to respond to customer needs and demonstrate commitment to customer.

Technical Skills: Ability to utilize and create technical documentation.

Key Activity: C9. Develop contingency and recovery plans

Employability Skills: Ability to create detailed supporting documentation; present complex ideas/information effectively to a variety of audiences; and to identify contingencies and propose appropriate steps for system recovery

Technical Skills: Knowledge of data assurance and data security techniques and practices Knowledge of contingency and recovery planning theories and practices.

D. Perform System Operations, Monitoring and Maintenance

Key Activity: D1. Operate computer system and run system applications

Technical Skill: Knowledge of applicable backup and restoration procedures(Minor)

Key Activity: D5. Evaluate maintenance processes and outcomes

Employability Skills: Ability to analyze and summarize information and identify interdependencies, to identify own strengths/limitations and accept constructive criticism (minor)

Technical Skills: Knowledge of preventative maintenance procedures and processes, of company practices for maintenance, and of evaluation documentation procedures. (Minor)

Key Activity: D8. Make recommendations and support internal processes and operations

Employability Skills: Ability to develop effective support responses and actions; and to monitor operational effectiveness.

Technical Skills: Knowledge of technical support operations, issues and constraints, of business issues regarding software licensing.

IV. Correlation of Gaps

After Comparing the NWCET Skills Standards using the Gap Analysis data, I found that every company had somewhat different perspectives on the Skills Standards and the needs of the particular companies. I put the information into an Excel Spreadsheet and identified the activities that applied to all three employers. The following is the list of the areas that were of greatest concern and needs of each of the companies.

A. Perform Trouble Shooting

There were no serious issues related to performing Trouble Shooting skills all of the employers were in agreement with the Cascades program or below the expectations determined by the Curriculum Crosswalk.

B. Customer Service

Only one area did not match the Curriculum Crosswalk from every employer

Key Activity: B4. Act as liaison between groups

Employability Skills: analyze group responses, compare multiple viewpoints.

C. Hardware and Software Maintenance and Installation

Key Activity: C3. Develop installation plan

Employability Skills: generate solutions and devise action plans; prioritize tasks, prepare schedules and monitor task sequences.

Technical Skills: utilize and create technical documentation;

Key Activity: C9. Develop contingency and recovery plans

Employability Skills: create detailed supporting documentation; and identify contingencies and propose appropriate steps for system recovery.

Technical Skills: Knowledge of data assurance and data security techniques and practices; of connectivity theories and practices; of hardware, software and networks; and of contingency and recovery planning theories and practices

D. Perform System Operations, Monitoring and Maintenance

There were minimal discrepancies between the individual employers on Skill D. The consensus was that most of the training about individual networks would be addressed when the newly hired employer went to work for. Training would be part of the new employees' early exposure to the company. Each company used proprietary equipment and software so that pre-employment training needs to be of a generic nature

Cascades Comments:

"Resolving customer issues was recognized as being the most important skill related to this list."

ESD Comments:

"The respondent noted that interpersonal relationships and communication were the most important part of the job of a support technician. Customer service at times is more important than technical knowledge."

"The ability to manage interpersonal relationships was considered the most important skill of a Network Support Specialist by this respondent."

Conclusion

Since communication and training customers turned out to be the most consistent gap within the Cascades Curriculum, I am creating a module to address record keeping and documentation as related to Customer Service which combines both technical and employability skills.

- This will be an interdisciplinary eclectic module that will include text and Internet research; computer generated and note card record keeping, written and oral reporting, technical application, and interactive evaluation between the student and the instructor.
- Usage Microsoft Office applications will be a part of the module a one part of the process for recordkeeping and planning. (3 written methods of record keeping will be the minimum used.)
- The student will combine textbook knowledge and hands on experience in a sequential manner as context for opportunities to work with problem solving on the individual PC and at the network level with hardware, software, configuration and network protocol.
- Students will self-evaluate their output with rubrics under the supervision of the instructor.
- Objective observable skills are the only actions to be evaluated. Attitude and personal character style can be modeled but not directly taught or evaluated.