## NTID
## Applied Computer Technology Outcomes Assessment
## Plan and Report for AY 2006-2007

*Program Goal: Provide students with job entry skills to acquire a variety of positions in the computer field as PC Support technicians, Network/Network Security technicians or Web Development technicians.*

| Critical Outcomes for all Students | | Assessment of Outcomes | | Timeline | | Results | |
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| Domain/Task/ Capability | Performance Criteria/ Benchmarks | Instrument/ Opportunity | Assessment of Performance | Develop | Collect | Summarization of Results | Use of Results |
| 1. PC Tech Support (General Technical) | a. *Building, Configuring and Maintaining a PC:* students will be able to correctly diagnose faults, remove faulty items, install items, and restore to working condition a personal computer.<br><br>b. *Managing and Maintaining an Operating System:* students will be able to install, configure, diagnose and maintain operating systems, drivers and application software. | a. To be assessed through hands-on exam at the end of the 0805-217 PC Hardware II course.<br><br>b. To be assessed through hands-on exam at the end of the 0805-215 PC Operating Systems course. | a. Given a PC with at least 3 random faults, **(80% of)** all students will be able to perform at a level of 2 or 3 in every measureable category.<br><br>b. Given the written description of the required configuration of an operating system with its directories and file structures, **(80% of)** all students will be able to correctly perform a variety of functions including OS installation and configuration, application program installation and management, creation and management of directories | a. 20051 and 20052<br><br>b. 20052 and 20053 | a. At the end of each quarter the 0805-217 course is offered starting in 20052.<br><br>b.At the end of each quarter the 0805-215 course is offered starting in 20053. | a. Results from 20052 Results not used. Trial only<br><br>Results from 20053 N=12 6/12 (50%) fully met expectation<br><br>b. Results from 20053 N=14 6/14 (43%) fully met expectations<br><br>Results from 20061 N=4 1/4 (25%) fully met expectation | a. 20052 This assessment was used as a pilot of the Hardware studies.<br><br>20053 Results shows that we **may** need to revisit what and how we are assessing, however, and N on 12 is rather low to make firm decisions.<br><br>b. 20053 This assessment was used as a pilot of the Operating Systems studies. Results were used to help guide assessments done in 20061.<br><br>20061 Results show that we **may** need to revisit what and how |

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| | | | and file structures, partitioning and preparation of storage media. | | | | we are assessing, but with an N of only 4, more data is needed before we make adjustments. |
| 2. Networking (General Technical) | a. *Networking Essentials:* Students will be able to connect, configure, administer, secure and troubleshoot a multi-platform peer-to-peer network that supports file and print sharing.<br><br>b. *Client Server Network:* Students will be able to connect, configure, administer, secure and troubleshoot a multi-platform client-server network that supports file and print sharing. | a. To occur through a hands-on exam at the end of 0805-225 Networking Essentials<br><br>b. To occur through a hands-on exam at the end of 0805-226 Client/Server Networks. | a. Given the resources and functional/ performance specifications, **(80% of)** all students will be able to connect, configure, manage, secure and troubleshoot a peer-to-peer network.<br><br>b. Given the resources and functional/ performance specifications, **(80% of)** all students will be able to connect, configure, manage, secure and troubleshoot a small intranet client/server network. | a. Fall 20051 | a. Each quarter the 0805-225 course is offered starting in 20052<br><br>b. Each quarter the 0805-226 course is offered starting in 20053 | a. Results of 20052 N=14 8/11 (78.6) fully met expectations<br><br>Results of 20053 N=13/16 (81.3%) fully met expectations<br><br>b. Results of 20053 N=14 12/14 (85.7%) fully met expectation | a. 20052 This was a considered a **pilot** since this was the first assessment done. We will need to collect more data before we know if we are on target or not.<br><br>20053 Results were generally positive, however, we still have a very small sampling of measurable data We will continue to monitor the results.<br><br>b. 20053 This was a considered a **pilot** since this was the first assessment done. We will need to collect more data before we know if we are on target or not. |
| 3. Web Development (General Technical) | a. *Web page Development*: Students will be able to create a multi- | a. To occur through a hands-on exam at the end of the | a. Given a written specifications of what students are | a. Fall 20051 | a. Each quarter the 0805-252 course is | a. Results of 20053 N=21 1/21 (4.7%) | a. 20053 and 20061 Though the number of |

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| | page Website using X(HTML) that contains text formatting, graphics, links, forms, tables and style sheets. | 0805-252 Web Development course. | to develop, **(80% of)** all students will be able to create a Web site with given criteria using X(HTML). | | offered starting in 20051 | fully met expectations<br><br>Results of 20061<br>N=3<br>0/3 (0.0%) fully met expectations | students that met expecations are very low, we need more data to determine what needs to be adjusted. We will collect data another year and make some adjustments at that time if warranted. |
| **Program Concentrations: Additional Technical Outcomes** | | | | | | | |
| PC Tech Support (Technical Concentration) | a. *Tech Support* : Students will be able to support a multi-platform PC business environment including peripherals. | a. To occur through a hands-on final project at the end of 0805-337 Server Management and Security or 0805-350 Computer Interfacing | a. Given a multiplatform simulated business environment, **85% of** the students will be able to demonstrate that they can support the repair and maintanence of all computers and computer related peripherals. | a. Winter 20052 & Spring 20053 | a. Each quarter the 0805-337 and 0805-350 courses are offered after Spring 20053 | a. The pilot assessment will be conducted 20062 or 20063. | N/A |
| Networking and Cyber Security (Technical Concentration) | a. *Networking:* Students will be able to install, configure, administer and troubleshoot a small LAN/WAN environment incuding servers.<br><br>b. *CyberSecurity:* Students will be able to secure a | a. To occur through a hands-on final project at the end of the 0805-337 Server Management and Security course.<br><br>b. To occur through a hands-on final project at the endo of the 0805-338 Firewall | a-b. Given a LAN/WAN environment, **85% of** the students will be able to demonstrate they can install, configure, administer, secure and troubleshoot the network. | a-b. Winter 20052 & Spring 20053 | a-b. Each quarter the 0805-337 and 0805-338 courses are offered after Spring 20053 | a. The pilot assessment will be conducted 20062 or 20063. | N/A |

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| | LAN/WAN environment. | and IDS course. | | | | | |
| Web Development and Database (Technical Concentration) | a. *Web Development:* Students will be able to develop a web page and load it from a client onto a server.<br><br>b. *Database:* Students will be able to develop a simple database and link it to a web page. | a. To occur through a hands-on final at the end of the 0805-323 Advanced Web Development course.<br><br>b. To occur through a hands-on final at the end of the 0805-321 Database Integration course. | a. Given specifications for a webpage **85% of** the students will be able to develop the webpage to correct specifications and load it to a server.<br><br>b. Given the specifications for the database to be linked to the webpage, **85% of** the students will be able to create the database and link it correctly. | a-b. Winter 20052 & Spring 20053 | a-b. a. Each quarter the 0805-323 and 0805-321 courses are offered after Spring 20053 | a. The pilot assessment will be conducted 20062 or 20063. | N/A |
| **Other:** | | | | | | | |
| Student Satisfaction | Graduating students will indicate overall satisfaction with program and courses. | Student Satisfaction Survey | 80% of students will indicate they are "very satisfied" or "satisfied" on 2 survey questions: one related to overall program satisfaction and one related to satisfaction with courses. | 2005-2006 | 2006-2007 | Since the first students from the new program concentrations will be completing their requirement 20063, the first student satisfaction survey will be conducted 20063. | N/A |
| Job Placement | Graduates will be employed in the field. | NCE Placement Data | 90% graduates will be employed in the field. | | Annually | NA | NA |
| Co-op Work Experience | Students will demonstrate technical competency on co-op job. | Co-operative Supervisor Evaluation | 80% students will achieve a score of 3 or above (5-point scale) on overall | | Annually, beginning AY 2006-07 | *For all NTID associate degree co-op students for 20061 to 20063: Total n=20; Students | *See comment below. |

| | | | student job performance statement on Co-op Supervisor Evaluation. | | | whose supervisors completed online evaluations: N=8; 100% of those students met criterion | |
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**Comments:**
*While there were problems getting online evaluations for 12 of the 20 students on co-op from 20061-20063, it is anticipated that 90% of the co-op evaluations will be completed online during summer 20064. At that time it may be possible to calculate performance of students for each program of study.

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