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| Course Information: | |
| College: | Waukesha County Technical College |
| Course Title: | Shell Scripting |
| Course Number: | 150-154 |

**Course Competencies**

Competencies are what learners will be able to do as a result of the learning experience. In this course, the competencies that you must demonstrate are:

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| **#** | **Course Competency:** |
|  | Upon completion of this course, successful students will be able to: |
| 1: | Identify text that matches RegEx patterns |
| 2: | Manipulate the content of files |
| 3: | Identify the best tool for a specific task within a specific environment |
| 4: | Manage environments by using variables |
| 5: | Navigate the Linux and Windows File System |
| 6: | Automate common system administration activities by implementing logical structures |
| 7: | Master the use of common administrative user interfaces |
| 8: | Leverage cmdlets to accomplish daily management tasks |
| 9: | Create reports using PowerShell |

*Create a Course Schedule to meet your needs. Below is an example:*

| **Required:** | **Required:** | **Required:** | **Required:** |
| --- | --- | --- | --- |
| **Week(s)/ Session:** | **Learning Plan/Description:** | **Targeted Competencies: (#)** | **Assessment Activities, (i.e. Performance Assessment Tasks [PATS], Exam/Quiz, Discussion Board, etc.):** |
| 1 | Introduction to Environments | Navigate the Linux and Windows File system  Master the use of common administrative user interfaces | Lesson #1 Review Questions (online, embargo)  Lab A (F2F) – Linux Scavenger Hunt  Lab B (F2F) – PowerShell Scavenger Hunt  Lab C (F2F) – Using vi |
| 2 | Working with RegEx | Identify text that matches RegEx patterns | Lesson #2 Review Questions (online, embargo)  Lab A (F2F) – RegEx Golf  Lab B (F2F) – php\_errorlog |
| 3 | Using sed & awk | Manipulate the content of files  Identify the best tool for a specific task within a specific environment  Navigate the Linux and Windows file system | Lesson #3 Review Questions (online, embargo)  Lab A (F2F) – Using sed  Lab B (F2F) – Report creation |
| 4 | Linux File Structure and Windows Command Line | Identify the best tool for a specific task within a specific environment  Navigate the Linux and Windows file system  Automate common system administration activities by implementing logical structures  Master the use of common administrative user interfaces | Lesson #4 Review Questions (online, embargo)  Lab A (F2F) – File System Navigation  Lab B (F2F) – Script creation |
| 5 | Introduction to PowerShell | Manage environments by using variables  Master the use of common administrative user interfaces  Leverage cmdlets to accomplish daily management tasks | Lesson #5 Review Questions (online, embargo)  Lab A (F2F) – Windows PowerShell ISE  Lab B (F2F) – Create a script that creates three aliases  Lab C (F2F) – Paint script |
| 6 | Writing Scripts | Automate common system administration activities by implementing logical structures  Master the use of common administrative user interfaces  Leverage cmdlets to accomplish daily management tasks | Lesson #6 Review Questions (online, embargo)  Lab A (F2F) – Create a bash shell script  Lab B (F2F) – Create a PowerShell script |
| 7 | Using Variables | Manage environments by using variables | Lesson #7 Review Questions (online, embargo)  Lab A (F2F) – Bash Scripts  Lab B (F2F) – PowerShell Scripts |
| 8 | Implementing Conditions | Automate common system administration activities by implementing logical structures | Lesson #8 Review Questions (online, embargo)  Lab A (F2F) – Scripts using User Input  Lab B (F2F) – PowerShell menu script |
| 9 | Incorporating Loops | Automate common system administration activities by implementing logical structures | Lesson #9 Review Questions (online, embargo)  Lab A (F2F) – Scripts using Loops  Lab B (F2F) – More Scripts using Loops |
| 10 | Using Built-In Functions | Automate common system administration activities by implementing logical structures  Leverage cmdlets to accomplish daily management tasks | Lesson #10 Review Questions (online, embargo)  Lab A (F2F) – Scripting using Built-in Functions  Lab B (F2F) – Scripting using Bash Built-in functions |
| 11 | Working with the File System | Identify text that matches RegEx patterns  Manipulate the content of files  Navigate the Linux and Windows File System | Lesson #11 Review Questions (online, embargo)  Lab A (F2F) – PowerShell & File System  Lab B (F2F) – Bash & File System |
| 12 | More PowerShell | Leverage cmdlets to accomplish daily management tasks  Create reports using PowerShell | Lesson #12 Review Questions (online, embargo)  Lab A (F2F) – Using cmdlets  Lab B (F2F) – Advanced cmdlets |