JOHN A. LOGAN COLLEGE
COURSE SYLLABUS

General Information

Course: CIS 171 – Introduction to Scripting
IAI No: NA
Semester:
Section:
Time:
Room:
Credit Hours: 4
Lecture Hours: 3
Lab Hours: 2

Instructor Information

Name:
Office:
Virtual Office Hours:

Monday	
Tuesday	
Wednesday	
Thursday	
Friday	

Phone:
Email:

Course Textbook & Materials

Warner. Sams Teach Yourself Windows PowerShell in 24 Hours uCertify Labs Student Access Card. Pearson, 2017
ISBN: 9780672338014

USB or student may use a cloud-based storage

Course Prerequisites

None

Course Description

This course provides students with the fundamental knowledge and skills to use scripting. It focuses on primary Windows PowerShell command line features and techniques for use with Windows Server and other Microsoft Windows products. Students will also learn basic scripting including, loops, counters, and arrays.

Course Objectives

Upon successful completion of this course, students should demonstrate knowledge of the following standard programming methods and techniques used to produce working, easy-to-read and easy-to-understand, efficient, and easy-to-modify program solutions.

1. Installing and configuring PowerShell
2. Utilizing the PowerShell Help System
3. PowerShell Commands
4. Object-oriented Programming
5. PowerShell Pipeline
6. Sorting, Filtering and Measuring with PowerShell
7. PowerShell Providers
8. Formatting PowerShell Output
9. PowerShell Remoting
10. PowerShell Multitasking and Workflows
11. WMI and CIM
12. RegExes
13. PowerShell Package Management
14. DSC
15. Scripting
16. Modules
17. Active Directory
18. SQL
19. SharePoint
20. Azure

College-Wide Student Learning Outcomes

The faculty and staff of John A. Logan College are committed to providing students with opportunities to develop learning abilities that will last a lifetime. Graduates will be prepared to succeed in their personal and professional lives because of achieved competence in the following student learning outcomes. In this course, students will be assessed in the following learning outcome:

NA	Communication: Students express thoughts, ideas, and feelings in both written and oral modes.
NA	Critical Thinking: Students apply a rational and methodical approach to problem solving based on use of appropriate evidence.
NA	Cultural and Global Awareness: Students demonstrate an understanding of the influence of culture and society.
NA	Information Literacy: Students locate, evaluate, retrieve, organize, create, and disseminate information.
NA	Quantitative Reasoning: Students use and understand numbers to interpret, evaluate, and express information in quantitative terms.

Topic Outline

Part 1: Introducing Windows PowerShell
Part 2: Understanding Objects and the Pipeline
Part 3: Extending the Reach of Windows PowerShell
Part 4: Managing Computers Remotely with Windows PowerShell
Part 5: Putting Windows PowerShell to Work
Part 6: Enterprise-Class Windows PowerShell
Part 7: Scripting with Windows PowerShell
Part 8: Administering Microsoft Enterprise Servers with Windows PowerShell

Course Schedule

Hands-on lab guidelines are provided at the end of the syllabus.

Week	Unit	Assignments
Week 1	Hour 1: Getting to Know Windows PowerShell Hour 2: Installing and Configuring Windows PowerShell	Chapter 1 Quiz, Chapter 1 Labs Chapter 2 Quiz, Chapter 2 Labs
Week 2	Hour 3: Mastering the Windows PowerShell Help System Hour 4: Finding and Discovering Windows PowerShell Commands	Chapter 3 Quiz, Chapter 3 Labs Chapter 4 Quiz, Chapter 4 Labs
Week 3	Hour 5: Thinking in Terms of Objects Hour 6: Mastering the Windows PowerShell Pipeline	Chapter 5 Quiz, Chapter 5 Labs Chapter 6 Quiz, Chapter 6 Labs Chapter 6 Hands-on lab: Writing a Simple Linear Script (CAE KU Basic Scripting & Programming, Objective 2)

Week 4	Hour 7: Sorting, Filtering, and Measuring Windows PowerShell Output	Chapter 7 Quiz, Chapter 7 Labs

Week	Unit	Assignments
Week 5	Hour 8: Managing Windows PowerShell Providers	Chapter 8 Quiz, Chapter 8 Labs
Week 6	Hour 9: Formatting, Exporting, and Converting Windows PowerShell Output	Chapter 9 Quiz, Chapter 9 Labs Chapter 9 Hands-on lab: Writing Simple & Compound Conditions (CAE KU Basic Scripting & Programming, Objective 3)
Week 7	Hour 10: Implementing One-to-One Windows PowerShell Remoting Hour 11: Implementing One-to-Many Windows PowerShell Remoting Hour 12: Deploying PowerShell Web Access	Chapter 10 Quiz, Chapter 10 Labs Chapter 11 Quiz Chapter 12 Quiz, Chapter 12 Labs Chapter 12 Hands-on lab: Writing Scripts to Securely Enable Remote System Management (CAE KU Basic Scripting & Programming, Objective 4)
Week 8	Hour 13: Multitasking Windows PowerShell Hour 14: Harnessing Windows PowerShell Workflow	Chapter 13 Quiz, Chapter 13 Labs Chapter 13 Hands-on lab: Creating a Scheduled PowerShell Job (CAE KU Basic Scripting & Programming, Objective 1) Chapter 14 Quiz, Chapter 14 Labs
Week 9	Hour 15: Introducing WMI and CIM Hour 16: Searching and Filtering with Regular Expressions	Chapter 15 Quiz, Chapter 15 Labs Chapter 16 Quiz
Week 10	Hour 17: Managing Software with Windows PowerShell OneGet	Chapter 17 Quiz, Chapter 17 Labs

Week 11	Hour 18: Desired State Configuration Basics	Chapter 18 Quiz, Chapter 18 Labs
Week 12	Hour 19: Introduction to Windows PowerShell Scripting Hour 20: Making PowerShell Code Portable with Modules	Chapter 19 Quiz, Chapter 19 Labs Chapter 19 Hands-on lab: Writing a Looping Script (CAE KU Basic Scripting & Programming, Objective 2) Chapter 20 Quiz, Chapter 20 Labs
Week 13	Hour 21: Managing Active Directory with Windows PowerShell Hour 22: Managing SQL Server with Windows PowerShell	Chapter 21 Quiz, Chapter 21 Labs Chapter 22 Quiz, Chapter 22 Labs

Week	Unit	Assignments
Week 14	Hour 23: Managing SharePoint Server with Windows PowerShell Hour 24: Managing Microsoft Azure with Windows PowerShell	Chapter 23 Quiz, Chapter 23 Labs Chapter 24 Quiz
Week 15	Exam	Exam
Week 16	Finals	

Method of Presentation

Lecture
Demonstration
Discussion
Research and Simulations

Method of Evaluation

Course Information Quiz: There will be one quiz **in D2L** covering the information contained in the course syllabus and course information document. That quiz will be worth 20 points.

Quizzes: There will be 24 chapter quizzes **in D2L**, one per textbook Hour/chapter. Each will be worth 10 points.

Labs: There will be 21 chapters with labs **in D2L**. Screen shots or print screen captures of completed labs must be submitted to the appropriate D2L Dropbox. Each will be worth 20 points.

Hands-on Labs: There will be 5 hands-on labs. Screen shots or print screen captures of completed labs must be submitted to the appropriate D2L Dropbox. Each hands-on labs will be worth 50 points.

Students are considered present for attendance when they are physically present in the classroom, actively participating in classroom activities as directed from the instructor.

1 Course Information quiz @ 20 points	**20**
24 Chapter quizzes @ 10 points each	**240**
21 Ucertify Dropbox labs @ 20 points each	**420**
5 Hands-on labs @ 50 point each	**250**
1 Exam @ 50 points	**50**
Total	**980**

Grading Scale:

A: 90% - 100%
B: 80% – 89%
C: 70% - 79%
D: 60% – 69%
F: 0% – 59%

Specific Course Requirements

Student Responsibilities: The student is required to read and study the textbook materials. Students are expected to have read the lecturing chapter prior to lecture. Students are responsible for all discussion, assignments, and announcements made in class and posted on the course Web site. ***Note:*** *All inquiries/questions should be directed to the instructor via e-mail. A response time of 24 hours Mon. – Fri. by noon and 48 hour response time Fri. noon – Sun. will be observed by both the instructor and students.*

Academic Dishonesty: Academic dishonesty will not be tolerated. If it is found that a student has been dishonest regarding academics, a zero will be given for said exercise, assignment, project, or test. In addition, academic dishonesty may result in expulsion, suspension, probation, or reprimand by the vice-president for administration. Please refer to Article IV, p. 34 of the John A Logan College's *Students Rights and Responsibilities: A Code of Conduct* publication.

Recording of lectures: You may not tape record any part of the lectures without the written permission from the instructor.

Class Conduct: Students are to behave in a respectful manner while in the classroom. Respect should be given to the classroom instructor, classmates, and classroom activities. Students should not engage in activities that will distract from the learning environment. Therefore, the following conduct must be followed:

- Students are to give the instructor/presenter their full attention during presentations.
- Students should not be working on anything other than class material during class time.
- Students should not be surfing the Internet, checking e-mail, instant messaging, playing games, etc., during class time.
- Use of personal electronic devices (cell phones, laptops, tablets, etc.) is not permitted in the classroom. Devices are expected to not sound in the classroom and should be set to silent or vibrate. Students may quietly excuse themselves from the classroom to answer a phone call or respond to a text message. Students should not repeatedly leave the classroom during a class period, since such activity might be disruptive to the instructor or other students. Students may quietly return to the classroom afterward.
- Software should not be disabled on classroom computers.

If, during lab time, all assigned class work has been completed and submitted for grading, the students may engage in other school related activities while in the computer lab. However, under **NO** circumstances should a student be doing anything other than what the instructor is presenting during lectures.

If students engage in activities contrary to the above, the following procedures will be adhered to:

- First Offense – students will be warned and counted absent for the day.

- Second Offense – students will be asked to leave the classroom with no questions asked and will lose all attendance points for the class.

- Third Offense – students will be asked to leave the classroom and will not be allowed back until they have met with the department chair. Students could at this time, be subject to expulsion from the class.

Additional College Information and Resources

Please see the JALC Syllabus Attachment