**UNIX SYSTEM ADMINISTRATION**

 **NET 145-** **Section: [001]**

 [Online]

 **Credit Hours:** 3.00 **Lab Hours:** 0.00 **Lecture Hours:** 3.00

 **IAI Core:** **IAI Majors:**

 **Semester: [Spring]** **Course Begins: [March 10]** **Course Ends: [May 8]**

 **Days: [Online]** **Times: [Online]** **Room: [Online]**

**Instructor:** [Jack Brzezinski, Ph.D.]

**E-mail:** [jbrzezinski@mchenry.edu]

**Phone:** [8578]

**Office Hours:** [Mondays 4pm – 6PM or by appointment]

**Office Location:** [D161]

**Required Course:**

 **Resources:** [Online account on: http://www.testout.com/]

 Course name on Testout.com: NET145-001SP Unix System Administration

 Canvas: course management system (for emails and course outline): <https://mchenry.instructure.com>

**Course Description:**

UNIX System Administration teaches the fundamentals of UNIX Operating System administration, including planning, installation and management. System administrators are responsible for keeping computers fully functional with minimum downtime, as well as backing up data in case of hardware failures. The course helps prepare students for this work. It may be repeated once for a maximum of 6 credit hours.

**Course Prerequisite: NET 140.**

**Course Objectives:**

At the completion of this course, the student will be able to:

1. Define an Operating System
2. Develop an appreciation of the Operating System Functions
3. Operate an Operating System
4. Recognize the importance of planning in the overall process
5. Understand intrinsic role of networking
6. Develop notion of planning in most activities
7. Build a partition strategy
8. Understand the installation process
9. Install the Operating System
10. Identify the characteristics of a running system
11. Appreciate the importance of automation
12. Work at the command line
13. Explain the role of the system administrator
14. Identify the principles of maintenance
15. Appreciate the importance of system administrators in an organization
16. Using basic system administration tools
17. Understand the key role of end-users
18. Appreciate customer service
19. Manipulate services for end-users
20. Identify the system resources
21. Develop appreciation of sharing limited resource
22. Allocating system resources to end-users
23. Understand the importance of audits and logging
24. Appreciate role of logging in security
25. Monitoring the log files
26. Explain role of automation procedures
27. Develop respect for automation as life-savers
28. Create and execute automation scripts
29. Understand the importance of backups
30. Develop respect for backups as essential
31. Backup system data

**Course Outline**

I. Understanding Operating Systems

II. Planning Your System

III. Installing Linux

IV. Running a Linux System

V. Role of System Administration

VI. Basic Administration Tasks

VII. Managing System Resources

VIII. System Logging

IX. Creating Scripts and Automated Procedures

X. Backing up System Data

**Policies**

**Attendance policy:** [Online]

**Late work/make-up policy:** [Please make an arrangement with the instructor]

**Withdrawals:** The last day to drop this course is **[**[www.mchenry.edu/academiccalendar.asp](http://www.mchenry.edu/academiccalendar.asp) **].** Failure to attend class does not constitute official withdrawal. If students are considering a withdrawal, they should consult directly with the instructor and an academic advisor. Students may withdraw from a class through the Registration Office, either in person or by fax: (815) 455-3766. In their request, students should include their name, student ID number, course prefix, number and section, course title, instructor, reason for withdrawing, and their signature. Withdrawal from a course will not be accepted over the telephone.

Please refer to the following link for other important college dates: [www.mchenry.edu/academiccalendar.asp](http://www.mchenry.edu/academiccalendar.asp)

**Special Needs Statement**

McHenry County College offers support services for students with special needs. It is your responsibility to meet with the Special Needs Coordinator and provide current documentation regarding a disability. Please call or stop by the Special Needs Department, (815) 455-8676, Room A260, as soon as possible if you would like more information about the accommodations that are available. In addition, it is important for you to discuss those accommodations with your instructor so you are fully able to participate in this course.

**Academic Integrity**

As an educational community, McHenry County College values the pursuit of academic excellence and integrity. In accordance with this philosophy and Chapter 10, Act 5 of the 1994 Illinois Community College Act, academic dishonesty in any form, including cheating, plagiarism, and all other acts of academic theft, is considered intolerable. Appropriate sanctions, up to and including suspension from the College will be imposed by authorized College personnel.

**Copyright Policy**

MCC will maintain current procedures and guidelines to ensure that all staff and students comply with applicable copyright laws and other intellectual property protection laws. The College will encourage staff and students to engage in the development of intellectual property and facilitate ownership protections with respect to such development of intellectual property.

The College expects that staff and students will act responsibly and ethically in a manner consistent with all copyright laws and College copyright procedures and guidelines. This policy authorizes the College to adopt and maintain such procedures and guidelines necessary to ensure compliance with copyright laws and to facilitate ownership protection with respect to the development of intellectual property.

**Student Code of Conduct and the Judicial Process**

Consistent with the MCC mission is an expectation that students will govern themselves in terms of appropriate behavior with emphasis on self-respect and respect for others. It is the practice of the College to respect the properly exercised rights of its students. The College recognizes a student’s rights within the institution to freedom of speech, inquiry and assembly; to the peaceful pursuit of education; and to the reasonable use of services and facilities at MCC.

MCC has adopted a Student Code of Conduct and judicial process to maintain a learning environment of respect, civility, safety, and integrity for all members of the MCC community.

Whenever possible, sanctions for violations of the Student Code of Conduct may be educational in nature. However, violations affecting the health and safety of members of the MCC community are deemed to be the most serious. Therefore, acts of violence, threats or dangerous behavior are most likely to result in a suspension from the College. Violations of the academic dishonesty policy may also result in suspension or expulsion from the institution and/or reduced or failing grade.

**Children on Campus**

For the safety of children on campus, children (i.e., less than 16 years of age) are not permitted on campus unattended by a parent/guardian, except when they are attending classes offered by MCC for children. The College requires that no children be allowed into a classroom/laboratory environment, including the Testing Center, Learning Center and computer labs, solely for the purpose of a parent/guardian to provide direct supervision of his/her child.

**Teaching Schedule**

The scheduling of the activities and teaching strategies on this syllabus, but not the objectives or content, may be altered at any time at the discretion of the instructor.

**Resources**

The following are useful resources available to you as a student at McHenry County College:

**Advising and Transfer Center:**

**Phone (815) 479-7565; Office A257**

[www.mchenry.edu/ATC/Index.asp](http://www.mchenry.edu/ATC/Index.asp)

**Counseling:**

**Phone (815) 455-8765; Office A257**

[www.mchenry.edu/counseling](http://www.mchenry.edu/counseling)

**Financial Aid:**

**Phone (815) 455-8761; Office A262**

[www.mchenry.edu/financialaid](http://www.mchenry.edu/financialaid)

**Library:**

**Phone (815) 455-8533; Office A212**

[www.mchenry.edu/library](http://www.mchenry.edu/library)

**Special Needs:**

**Phone (815) 455-8676; Office A260**

[www.mchenry.edu/specialneeds](http://www.mchenry.edu/specialneeds)

**Tutoring and Study Skills (Sage Learning Center):**

**Phone (815) 455-8579; Office A247**

[www.mchenry.edu/sage](http://www.mchenry.edu/sage)

This workforce solution was funded by a grant awarded by the U.S. Department of Labor’s Employment and Training Administration. The solution was created by the grantee and does not necessarily reflect the official position of the U.S. Department of Labor. The Department of Labor makes no guarantees, warranties, or assurances of any kind, express or implied, with respect to such information, including any information on linked sites and including, but not limited to, accuracy of the information or its completeness, timelines, usefulness, adequacy, continued availability, or ownership. This solution is copyrighted by the institution that created it. Internal use, by an organization and/or personal use by an individual for non-commercial purposes, is permissible. All other uses require the prior authorization of the copyright holder.