COURSE DESCRIPTION:

Students plan, configure, and administer a directory services infrastructure, including configuring Domain Name System (DNS) to manage name resolution, schema, and replication, administering the user environment and software with group policy, deploying the Windows operating system remotely using Remote Installation Services (RIS), and using directory services to centrally manage users, groups, shared folders, and network resources. In addition, implementing and troubleshooting security in a directory services infrastructure is covered, as well as monitoring and optimizing directory services performance. Hands-on exercises reinforce certification exam objectives.

Text(s): Reference Division Booklist

Prerequisites: NET 122

Credits: 3  Lecture Hours: 2  Studio/Lab Hours: 2

Food and drink are strictly prohibited in classrooms, as per health and safety laws. Students may not bring in chemicals or cleaning fluids without the appropriate MSD sheets.

Course Coordinator: Jeff Weichert  Latest Review: SPRING 2019
OVERVIEW OF THE COURSE

Students plan, configure, and administer a directory services infrastructure, including configuring Domain Name System (DNS) to manage name resolution, schema, and replication, administering the user environment and software with group policy, deploying the Windows operating system remotely using Remote Installation Services (RIS), and using directory services to centrally manage users, groups, shared folders, and network resources. In addition, implementing and troubleshooting security in a directory services infrastructure is covered, as well as monitoring and optimizing directory services performance.

The course is intended for those who administer Microsoft networks or who are on the Microsoft Certified Solutions Associate certification track.

This three-credit course uses a combination of lectures, demonstrations, discussions, online assignments, and hands-on labs.

PREREQUISITES

The following skills are required to complete the course successfully:

- Knowledge of the fundamentals of current networking technology is required.
- Knowledge and experience administering Windows networks is recommended.
- Successful completion of the Windows Server course is recommended.

COURSE GOALS

At the completion of this course, with appropriate study, you will be able to:

- Administer Active Directory, including tasks and tools, Microsoft Management Console (MMC) and Task Scheduler
- Implement Active Directory, including planning, installing, understanding Operations Master Roles, and Organizational Unit structure.
- Integrate AD with Domain Name Service (DNS), including understanding DNS Name resolution, understanding and configuring Zones, Zone replication and transfer, and general monitoring and troubleshooting.
- Configure AD Sites, including configuring Site settings, Inter-Site replication, replication troubleshooting, and managing and maintaining server settings.
- Administer User Accounts, including planning and creating, creating User Profiles and Home Directories, and general maintenance.
- Administer Group Accounts, including planning and creating, understanding Default Groups, and special Administrator Groups.
- Secure network resources, including understanding and implementing NTFS permissions, special permissions, copying and moving files and folders, and troubleshooting permission problems.
• Administer shared folders, including planning and sharing, combining share permissions with NTFS permissions, and configuring DFS to gain access to network resources.

• Locate objects, control access to objects, publish resources, move objects, backup and restore the directory, and delegate administrative control of objects, and troubleshoot.

• Administer Group Policy, including concepts, planning and implementation, managing software group policy, and troubleshooting.

• Administering security, including auditing, security logs, user rights, security templates, security analysis, and troubleshooting.

General Education Knowledge Goals
Goal 1. Communication - Students will communicate effectively in both speech and writing.
Goal 2. Mathematics - Students will use appropriate mathematical and statistical concepts and operations to interpret data and to solve problems.
Goal 3. Science - Students will use the scientific method of inquiry, through the acquisition of scientific knowledge.
Goal 4. Technology - Students will use computer systems or other appropriate forms of technology to achieve educational and personal goals.

MCCC Core Skills
Goal A. Written and Oral Communication in English - Students will communicate effectively in speech and writing, and demonstrate proficiency in reading.
Goal B. Critical Thinking and Problem-solving - Students will use critical thinking and problem solving skills in analyzing information.
Goal D. Information Literacy - Students will recognize when information is needed and have the knowledge and skills to locate, evaluate, and effectively use information for college level work.
Goal E. Computer Literacy - Students will use computers to access, analyze or present information, solve problems, and communicate with others.
Goal F. Collaboration and Cooperation - Students will develop the interpersonal skills required for effective performance in group situations.

UNITS OF STUDY
At the completing of this course, with appropriate study, you will be able to:

1. Configure network load balancing
2. Configure and manage failover clustering
3. Manage VM movement
4. Configure advanced file services
5. Implement dynamic access control
6. Configure and optimize storage
7. Configure and manage backups
8. Recover servers
9. Configure site level fault tolerance
10. Implement advanced DHCP and DNS solutions
11. Deploy and manage IPAM
12. Configure a Domain and a Forest
13. Configure trusts
14. Configure Sites
15. Manage AD and SYSVOL replication
16. Implement Federation Services
17. Install, configure, and manage AD Certificate Services

**EVALUATION**

Final grades are determined by a weighted average of midterm and final examinations, quizzes, laboratory assignments, homework assignments, class participation, and attendance. Your final grade in the course will be based on the following:

- Class attendance and participation: 10%
- Homework assignments: 15%
- Laboratory assignments: 15%
- Quizzes: 20%
- Midterm examination: 20%
- Final examination: 20%

Total: 100%

Grades will be assigned in accordance with the following:

<table>
<thead>
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<th>Letter grade</th>
<th>Nominal %</th>
<th>QPA quality points</th>
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<tr>
<td>A</td>
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<td>0-59</td>
<td>0.0</td>
</tr>
</tbody>
</table>

**Attendance Policy:**

It is expected that students attend and be **on time** for all class meetings; attendance is taken at the beginning of every class. 3 lates count as an absence. To accommodate students' reasonable, personal situations that might prevent them from attending...
classes, each student is entitled to excused absences amounting to the equivalent of one week’s class time in a semester. At the instructor's discretion, **students’ reasonable, personal situations may permit limited excused absences if proper documentation is provided.** Students with repeated unexcused absences may be subjected to a drop in letter grade or result in withdrawal from the course. Students are responsible for acquiring content that is covered, announcements made, and materials that may have been distributed in class if they are late or absent.

**Assignment Policy:**
All assignments are expected to be handed in on the due date at the beginning of class. 10% will be deducted each week for assignments turned in late. All late assignments must be turned in two weeks prior before the final exam.

**Academic Integrity Statement**
Academic integrity is important to student success. Students who submit the work of another student will be penalized. According to the student handbook, “A student who, a) knowingly represents work of others as his/her own; b) uses or obtains unauthorized assistance in the execution of any academic work; or c) gives fraudulent assistance to another student is guilty of cheating. Violators will be penalized.”

**Classroom Conduct Statement**
The college welcomes all students into an environment that creates a sense of community and pride and respect; we are all here to work cooperatively and to learn together.

Students must follow ordinary rules of courtesy during class sessions. Engaging in private conversations, texting, answering a cell phone, sleeping, or other disruptive behavior during class time will not be tolerated.

**First Semester Students** A coach has been assigned to assist you with navigating your first semester in college. They help with understanding how Mercer works, finding appropriate help with course work, and establishing academic goals. Visit [www.mccc.edu/coaching](http://www.mccc.edu/coaching) to find your coach or Contact: Arlene Stinson, LB217, 570-3451, [SOAR@mccc.edu](mailto:SOAR@mccc.edu)

**Academic Advising after your first semester** Faculty advisors provide help with completing your major after your first semester. Meet your faculty advisors! Contact the division of your major to find out who is your faculty advisor.

- **Liberal Arts Division** Debbie Stotland LA162, 570-3378, [Stotland@mccc.edu](mailto:Stotland@mccc.edu)
- **Bus STEM Division** Doris Geck BS134, 570-3482, [Geckd@mccc.edu](mailto:Geckd@mccc.edu)
- **Health Sciences** Barbara Pieslak MS126, 570-3383, [pieslakb@mccc.edu](mailto:pieslakb@mccc.edu)
- **Undecided major** Michael Glass SC201, 570-3530, [glassm@mccc.edu](mailto:glassm@mccc.edu)
Use your “MyMercer” Portal! Your “MyMercer” portal contains your MercerMail, financial information, class schedule, grades, and other information. Check your “MyMercer” portal every day! Visit www.mccc.edu/mymercer to access your portal.

Tutoring support Academic support services are free and available for all students. Drop in or contact the following to make arrangements:

- Arlene Stinson (WWC), LB 217, 570.3422, stinsona@mccc.edu
- Joann Mia (TC), KC311, 570-3128, miaj@mccc.edu

Reasonable Accommodations for Students with Documented Disabilities Mercer County Community College is committed to ensuring the full participation of all students in all activities, programs and services. If you have a documented differing ability or think that you may have a differing ability that is protected under the ADA and Section 504 of the Rehabilitation Act, please contact Arlene Stinson in LB 216 stinsona@mccc.edu for information regarding support services. If you do not have a documented differing ability, remember that other resources are available to all students on campus including academic support through our Academic Learning Center located in LB 214.

Career and Transfer Center Planning to go to work or to transfer to a 4-year college after completing your Mercer degree? Contact the Career and Transfer Center for support and advice.

- Laurene Jones (WWC transfer services), SC201, 570-3307, jonesl@mccc.edu
- Michael Glass (WWC career services), SC201 570-3530, glassm@mccc.edu
- Kimberley Bowser (TC transfer and career), KC216, 570-3110, bowserk@mccc.edu

Counseling Services Are you experiencing personal challenges, feeling overwhelmed? Are you having stress and anxiety? Counseling services are available free of charge. Contact: Dorothy Gasparro (Counseling srvs), SC239, 570-3354, gasparrd@mccc.edu

Veteran’s Services If you are military, veteran, or family member, we offer free support for you. Contact: John Becker, SC220, 570-3240, vets@mccc.edu

Financial Aid It is recommended that students complete an application for financial aid to determine eligibility for financial assistance. The application is FREE and available for completion at www.fafsa.ed.gov.