Faculty is required to have the outline submitted to the Academic Affairs Office. The course outline is the form used for approval of new courses by the Academic Affairs and Standards Council.

DEPT. _____ CST__ COURSE NUMBER: __________ 2350

NUMBER OF CREDITS: 2

COURSE TITLE: Virtual Computing

CATALOG DESCRIPTION: This hands-on course introduces virtual technologies used in an enterprise network environment. This course includes virtualization and storage management concepts using VMWare server virtualization products. Students will install and configure a network in a virtual environment, including applications and desktop virtualization. By learning basic deployments, upgrades, virtual workloads, advanced network architectures, multitenant clouds, and back up and disaster recovery students will be prepared to manage a virtual architecture.

AUDIENCE: This course is for students and computer professionals

FULFILLS MN TRANSFER CURRICULUM AREA(S) (Leave blank if not applicable)

PREREQUISITES OR NECESSARY ENTRY SKILLS/KNOWLEDGE: CST 1190 Introduction to Networking

LENGTH OF COURSE: 2 lecture hours per week for 16 weeks or the equivalent if delivered via distance learning.

THIS COURSE IS USUALLY OFFERED: Every other year □ fall x spring summer □ undetermined □

Four goals are emphasized in course at Minnesota West Community & Technical College:

1. ACADEMIC CONTENT: The student will achieve the knowledge and skill needed in the area of Virtual Computing.
2. THINKING SKILLS: The student will have an understanding of the rational, theory and components of Virtual Computing.
3. COMMUNICATION SKILLS: The student will begin to demonstrate appropriate communication techniques in working with the internet and fellow students to complete assignments.
4. **HUMAN DIVERSITY** – The student will gain self-awareness regarding their feelings towards people of different cultures, value systems and socioeconomic status.

**TOPICS TO BE COVERED:**
- Virtualization software definition and types
- Uses of Virtualization software

**LIST OF EXPECTED COURSE OUTCOMES:**
1. Identify the cause and cost of network downtime.
2. Describe SAN technology.
3. Describe server virtualization.
4. Analyze active and passive server clustering.
5. Evaluate concepts for cloud computing.
6. Implement server virtualization.

**LEARNING/TEACHING TECHNIQUES** used in the course are:
- Collaborative Learning
- Student Presentations
- Creative Projects
- Lecture
- Demonstrations
- Lab
- Problem Solving
- Interactive Lectures
- Individual Coaching
- Films/Videos/Slides
- Other (describe below)

**ASSIGNMENTS AND ASSESSMENTS FOR THIS CLASS INCLUDE:**
- Reading
- Oral Presentations
- Textbook Problems
- Group Problems
- Other (describe below)
- Tests
- Worksheets
- Papers
- Term Paper
- Individual Projects
- Collaborative Projects
- Portfolio

**EXPECTED STUDENT LEARNING OUTCOMES:**

**Veteran Services:** Minnesota West is dedicated to assisting veterans and eligible family members in achieving their educational goals efficiently. Active duty and reserve/guard military members should advise their instructor of all regularly scheduled military appointments and duties that conflict with scheduled course requirements. Instructors will make every effort to work with the student to identify adjusted timelines. If you are a veteran, please contact the Minnesota West Veterans Service Office.

The information in this course outline is subject to revision.

To receive reasonable accommodations for a documented disability, please contact the campus Student Services Advisor or campus Disability Coordinator as arrangements must be made in advance. In addition, students are encouraged to notify their instructor.