Moberly Area Community College
Common Syllabus

ITC 230: Switching and Wireless Essentials
Current Term

Instructor:
Office number:
Office hours:
Response time:  I typically respond to student emails within 24 hours, Monday through Friday.
Contact information:
Classroom number:
Class days and time:

Catalog Description:  ITC 230 Switching and Wireless Essentials (5-0-5)
Students develop workforce readiness skills and build a foundation for success in networking-related careers. Through hands-on activities and labs, students learn advanced routing, switching, and wireless technologies in preparation for the Cisco CCNA certification exam. The course may need to be retaken if not completed within defined parameters resulting from changes in the Cisco curriculum.

Prerequisite/Co-requisite:  ITC 130


Other Required Materials: The instructor will create accounts for students at NetAcad.com
One (1) 64 GB Jump/Flash/Pen Drive/Memory Stick.
Virtual Participants - 1 Set, Personal Headphones with microphone
or Duet PCS Desktop Speakerphone (required)

Purpose of Course:
CCNAv7: Switching, Routing, and Wireless Essentials (SRWE) covers the architecture, components, and operations of routers and switches in small networks and introduces wireless local area networks (WLAN) and security concepts. Students learn how to configure and troubleshoot routers and switches for advanced functionality using security best practices and resolve common issues with protocols in both IPv4 and IPv6 networks.
By the end of the course, students will be able to:

- Configure VLANs and Inter-VLAN routing applying security best practices.
- Troubleshoot inter-VLAN routing on Layer 3 devices.
- Configure redundancy on a switched network using STP and EtherChannel.
- Troubleshoot EtherChannel on switched networks.
- Explain how to support available and reliable networks using dynamic addressing and first-hop redundancy protocols.
- Configure dynamic address allocation in IPv6 networks.
- Configure WLANs using a WLC and L2 security best practices.
- Configure switch security to mitigate LAN attacks.
- Configure IPv4 and IPv6 static routing on routers.

This instructor-led course is the 2nd of 3 courses in the Cisco CCNAv7 curriculum. The course includes activities using Packet Tracer, hands-on lab work, and a wide array of assessment types and tools.

Course Content:

1. Basic Device Configuration
2. Switching Concepts
3. VLANs
4. Inter-VLAN Routing
5. STP Concepts
6. EtherChannel
7. DHCPv4
8. SLAAC and DHCPv6
9. FHRP Concepts
10. LAN Security Concepts
11. Switch Security Configuration
12. WLAN Concepts
13. WLAN Configuration
14. Routing Concepts
15. IP Static Routing
16. Troubleshoot Static and Default Routes

Statement to Connect Course with Technical Program Outcome Statement:
In compliance with MACC’s General Education outcomes, the student who completes this course will be able to:

- Demonstrate effective written and oral communication;
- Students will think critically while systematically assessing problems, identifying issues, and implementing solutions.
- Students will demonstrate skill mastery and will pursue lifelong learning in their field while adapting to changing industry standards and following evidence-based practices.
Expected Study Time Commitments:
Students should expect to spend approximately 2 to 4 hours per week studying, reading, and working on assignments for each registered credit hour. For example, 6 to 12 study hours per week may be expected for a 3-credit hour class.

ASSESSMENT OF STUDENT LEARNING

Grade Scale:
- A = 90-100%
- B = 80-89%
- C = 70-79%
- D = 60-69%
- F = 59 and below

A grade of “C” or higher must be achieved in all required ITC courses (prefix “ITC”) for all IT AAS degrees and certificates.

Assessment:
(State the way learning outcomes will be measured. They may be measured through, but not limited to the following: objective and essay questions, papers, quizzes, oral presentations, class participation, small group work, and/or projects.

Description of Assignment(s)/Project(s)

INSTRUCTOR POLICIES

Tardiness:
per Instructor’s policy

Make-up and late work:
per Instructor’s policy

Extra-credit work:
per Instructor’s policy

Schedule of Student Assignments/Activities:
Instructors will identify a Student Assignment/Activities schedule. Instructors have the prerogative to construct the schedule by class periods, weeks, or an overview of topics to be covered.
Other:
List any other instructor policies

COLLEGE POLICIES

Attendance:
Students are expected to attend all class sessions for which they are enrolled. The College reserves the right to drop or withdraw students from courses due to lack of attendance.

Students need to be aware that dropping/being dropped from a course and their last date of attendance in the course may impact their financial aid.

MACC faculty are required to track attendance and report a lack of attendance. An instructor must complete the appropriate steps to drop a student within one week following the student’s violation of the attendance policy. Additionally, a student’s attendance rate will be calculated based upon the first day the academic session begins (not the student’s date of enrollment in the course). If a student does not attend a course as defined below, the student will be dropped as “Never Attended.”

Term Length Drop Calculations

16-week: Any student who misses two (2) consecutive weeks of class will be dropped from the course by the instructor unless acceptable justification is provided by the student and the student still has the opportunity to be successful in the course.

8-week: Any student who misses one (1) consecutive week of class will be dropped from the course by the instructor unless acceptable justification is provided by the student and the student still has the opportunity to be successful in the course.

4-week: Any student who misses two (2) consecutive days of class will be dropped from the course by the instructor unless acceptable justification is provided by the student and the student still has the opportunity to be successful in the course.

Intersession: Any student who misses one (1) day of class will be dropped from the course by the instructor unless acceptable justification is provided by the student and the student still has the opportunity to be successful in the course.

Acceptable justification may include but is not limited to, family emergencies, illness or injury, college-approved co-curricular and extra-curricular activities, and religious holidays.
**Definition of Course Attendance**

**In Seat Course**  
Physically attending scheduled, face-to-face, class meetings

**Virtual Course**  
Being present, via an appropriate platform, for scheduled class meetings/activities

**Hybrid Course**  
Physically attending scheduled, face-to-face, class meetings and active participation in the online portion of the course which may include any or all of the following:  
- Completion of quizzes or exams during class meetings and online  
- Submission of assignments during class meetings and online  
- Participation in discussions during class meetings and online

**Online Course**  
Active participation in an online course includes the following:  
- Completion of quizzes or exams  
- Submission of assignments  
- Participation in threaded discussions

Simply logging into the Learning Management System (Canvas) and/or accessing the course and course-related material does not constitute active participation for the online component of hybrid courses or online courses. (*Policy Handbook, G.040*)

**Academic Dishonesty:**
MACC board policy is as follows: “Academic dishonesty by students damages institutional credibility and unfairly jeopardizes honest students; therefore, it will not be tolerated in any form.” Forms of academic dishonesty include but are not limited to the following: violations of copyright law, plagiarism, fabrication, cheating, collusion, and other academic misconduct. Incidents of dishonesty regarding assignments, examinations, classroom/laboratory activities, and/or the submission of misleading or false information to the College will be treated seriously. The procedure for handling academic dishonesty is outlined in the Student Handbook (*Policy Handbook G.020*). In cases of alleged academic dishonesty, the burden of proof is on the student, not on the instructor.

**Recording Class Sessions Using Zoom:**
The privacy of students is a priority in live or virtual meetings. Recordings of lectures or class meetings that share student information constitute an educational record and are protected under FERPA. Instructors may share recordings within the course section where they were originally recorded and only with the students enrolled in the section. Documented consent from each student identified in the recording is required to distribute outside of the course where it was originally recorded, or student identity must be redacted.
**Student Email:**
MACC Mail is the official student email system at MACC. Official college communication is sent via this email system. Students are responsible for checking their MACC Mail account regularly. Students may also receive notifications and reminders from MACC through the online learning platform. However, students should remain aware that the online learning platform messaging system and MACC Mail (student email) system are two separate systems.

**ADA Statement:**
Students who have disabilities that qualify under the Americans with Disabilities Act may register for assistance through the Office of Access and ADA Services. Students are invited to contact the Access Office to confidentially discuss disability information, academic accommodations, appropriate documentation, and procedures. For more information, please call either the Moberly office at (660) 263-4100 Ext. 11240 or the Columbia office at (573) 234-1067 Ext. 12120, or visit our web page at [http://www.macc.edu/index.php/services/access-office](http://www.macc.edu/index.php/services/access-office).

**Title IX Statement:**
MACC maintains a strict policy prohibiting sexual misconduct in any form, including sexual harassment, sexual discrimination, and sexual violence. All MACC employees, including faculty members, are considered mandated reporters of sexual misconduct and as such are expected to contact the Title IX Coordinator when they become aware, in conversation or writing, of an incident of sexual misconduct. For more information on this policy or to learn about support resources, please see [http://www.macc.edu/sexual-misconduct-policy](http://www.macc.edu/sexual-misconduct-policy) or contact Ms. Cheryl Lybarger, MACC's Title IX Coordinator, at 660-263-4110, ext. 11369 or CherylLybarger@macc.edu