



North Central State College
MASTER SYLLABUS
2020-2021

- A. Academic Division: Business, Industry, and Technology
- B. Discipline: Information Technology – Networking
- C. Course Number and Title: ITEC 2665 Wireless & Business Technologies
- D. Course Coordinator: Brian Baldrige
Assistant Dean: Toni Johnson, PhD

Instructor Information:

- Name: Click here to enter text.
- Office Location: Click here to enter text.
- Office Hours: Click here to enter text.
- Phone Number: Click here to enter text.
- E-Mail Address: Click here to enter text.

- E. Credit Hours: 3
Lecture: 2 hours
Laboratory: 2 hours
- F. Prerequisites: ITEC1645 (minimum grade of C-)
- G. Syllabus Effective Date: Fall 2020
- H. Textbook(s) Title: *TBD*
- Author:
 - Copyright Year:
 - Edition:
 - ISBN#:

- I. Workbook(s) and/or Lab Manual: None

- J. Course Description: Upon completion of this course, students will be exposed to design, implement, and manage wireless and voice over IP (VOIP) networks, as well as remote monitoring and management (RMM) solutions and technologies.

The primary focus of this course is the installation and management of wireless networks with further solutions involving day to day operations and troubleshooting. The course follows a logical organization of the Certified Wireless Network Administrator (CWNA) Wireless exam objectives (a vendor-neutral enterprise WI-FI certification). Material is presented in a concise manner focusing on increasing the student's retention and recall of exam topics. The core wireless component of this course prepares students for the Certified Wireless Network Professional's (CWNP) CWNA wireless certification exam.

The VOIP component of this course introduces students to voice over IP (VOIP) technologies. Students will plan, implement, and manage VOIP networks. The VOIP component of this course prepares students for 3CX's Basic, Intermediate, and Advanced VOIP certification exams. Students are also introduced to remote monitoring and management (RMM) technologies and call tracking/ticketing systems.

K. College-Wide Learning Outcomes:

College-Wide Learning Outcome	Assessments - - How it is met & When it is met
Communication – Written	
Communication – Speech	
Intercultural Knowledge and Competence	
Critical Thinking	
Information Literacy	
Quantitative Literacy	

L. Course Outcomes and Assessment Methods:

Upon successful completion of this course, the student shall:

Outcomes	Assessments – How it is met & When it is met
1. Define the basic characteristics of RF and RF behavior	Labs, tests, midterm/final exam
2. Identify RF signal characteristics as they relate to antennas	Labs, tests, midterm/final exam
3. Describe the components that make up an 802.11 wireless service set	Labs, tests, midterm/final exam
4. Explain 802.11 channel access methods	Labs, tests, midterm/final exam
5. Define and describe controller-based, distributed, cloud-based, and controller-less WLAN architectures	Labs, tests, final exam
6. Identify and configure WLAN security mechanisms	Labs, tests, final exam
7. Locate and identify sources of RF interference	Labs, tests, final exam
8. Define and apply troubleshooting processes to resolve common 802.11 problems for a given set of conditions	Labs, tests, final exam
9. Describe the components and primary use of dial-tone services: SIP, PRI and POTS	Labs, tests, final exam
10. Install and configure On-Premise and Cloud IP-based PBX phone systems	Labs, tests, final exam
11. Provision IP Phones and program extension properties	Labs, tests, final exam
12. Apply advanced call routing methods for a given set of conditions	Labs, tests, final exam
13. Describe Unified and Mobile Platforms which extend VOIP PBX capabilities	Labs, tests, final exam

M. Topical Timeline (Subject to Change):

For the latest topical timeline, see Canvas Modules and Assignments:

<https://ncstate.instructure.com/courses/<insert course number here>>

N. Course Assignments:

1. Labs
2. Tests
3. Midterm Exam
4. Practice Exam
5. Final Exam

O. Recommended Grading Scale:

NUMERIC	GRADE	POINTS	DEFINITION
93-100	A	4.00	Superior
90-92	A-	3.67	Superior
87-89	B+	3.33	Above Average
83-86	B	3.00	Above Average
80-82	B-	2.67	Above Average
77-79	C+	2.33	Average
73-76	C	2.00	Average
70-72	C-	1.67	Below Average
67-69	D+	1.33	Below Average
63-66	D	1.00	Below Average
60-62	D-	0.67	Poor
00-59	F	0.00	Failure

P. Grading and Testing Guidelines:

See: Canvas Grading & Late Assignment Policies

Q. Examination Policy:

Students who have missed a scheduled in-class test must contact their instructor in a timely manner (usually before the next scheduled class) to schedule a makeup exam or risk receiving a score of zero for the missed test. Makeup tests/quizzes may be changed from their original in-class form/content at the discretion of the instructor. In class bonus work cannot be made up.

See also: Canvas – Grading & Late Assignment Policies

R. Class Attendance and Homework Make-Up Policy:

It is important that you attend class as each class builds on the previous one, especially as it refers to the use of virtual machines, labs, and lab simulations.

Attendance bonus points may be earned according to the following scale:

- 100% attendance = 4% of the class' total possible points
- 97 – 99% attendance = 2% of the class' total possible points
- 94 – 96% attendance = 1% of the class' total possible points
- Less than 94% attendance = 0 points

Note: Unless otherwise pre-approved by your instructor, you must be on-time and attend the entire class to earn credit. Being late is factored into your attendance score.

Technical malfunctions will not be accepted as an automatic excuse for late work.

Late activities/assignments (all forms, including missed labs, quizzes, tests, and exams), if accepted, will be docked points as follows:

- less than one day late - minus 5%
- less than one week late, minus 20%
- less than two weeks late, minus 50%
- more than two weeks late, not accepted

See also: Canvas – Grading & Late Assignment Policies

S. Classroom Expectations:

See: Canvas – Professionalism & Communication Etiquette Expectations

T. College Procedures/Policies:

Important information regarding College Procedures and Policies can be found on the [syllabus supplement](#) located at <https://sharept.ncstatecollege.edu/committees/1/curriculum/SiteAssets/SitePages/Home/SYLLABUS%20SUPPLEMENT.pdf>