



Network Fundamentals

CNS101.[160](#)

Spring 2022

Number of Credits: 4

Class Meets: 3/14/2022 – 4/30/2022

Instructor: Bill Courter

Contact Email: courterwilliamt@jccmi.edu

Course Description

This course introduces students to fundamental networking concepts and technologies. The course materials will assist in developing the skills necessary to understand, plan and implement small networks across a range of applications. It also helps prepare the student for the CompTIA Network+ certification exam.

Prerequisite(s)

ENG 085 and ENG 091

Course Goals

The course introduces network architectures, models, protocols, and networking elements – functions needed to support the operations and priorities of Fortune 500 companies to small innovative retailers

The course allows you to simulate building simple local area networks (LANs) yourself. You'll gain a working knowledge of IP addressing schemes, foundational network security, and the ability to perform basic configurations for routers and switches

Course Objectives

The course goals and objectives incorporate specific General Education Outcomes (GEOs) established by the JC Board of Trustees, administration, and faculty. These goals are in concert with four-year colleges and universities and reflect input from the professional communities we serve. GEOs guarantee students achieve goals necessary for graduation credit, transferability, and professional skills needed in many certification programs. The GEOs and course objectives addressed in this class include the following:

By the end of the course, students will be able to:

- Explain network technologies.
- Explain how devices access local and remote network resources.
- Describe router hardware.
- Explain how switching operates in a small to medium-sized business network.
- Design an IP addressing scheme to provide network connectivity for a small to medium-sized business network.
- Configure initial settings on a network device.
- Implement basic network connectivity between devices.
- Configure monitoring tools available for small to medium-sized business networks.

Textbook:

Textbook Zero: We will be using the Cisco Networking Academy materials, which provides access to all necessary text in a digital format. By enrolling in the course, you will have access to the materials.

[Learn about the new textbook program at JC](#)

For account billing questions, please contact the Jackson College Cashier at jccashier@jccmi.edu

Grading Procedure

Quizzes and Examinations: Quizzes are given after each module. Quizzes can be retaken three times, up to the date the exam is given for that chapter. The highest grade will count.

There will be a mid-term exam and a final exam. Unlike the quizzes, the exams cannot be retaken, and they will have time constraints. If you have an emergency and will miss an exam date, contact the instructor immediately. You must make up the exam within the next 2 weeks for the mid-term or the end of the course for the final.

Quizzes and exams are open-book.

Assignments

Assignments will have a due date. Late assignments will be accepted up to one week past the due date with a reduced grade.

References – Wikipedia

Articles in Wikipedia may provide an initial source for information and definition; it is not considered an authoritative source. It is not generally used in the academic environment because you cannot identify the source of the information or the author in many cases. Without the author's identity, the article loses merit and is considered to possess little scholarly value. You should refrain from using Wikipedia in your references.

Grades:

The below method is employed for evaluating student performance and the relative weight each evaluative tool has upon the final grade.

EVALUATION:

End of Chapter Quizzes	20%
Module Homework	50%
Midterm	15%
Final	15%

Grading Scale

Grade Range	GPA
94-100	4.0
89-93	3.5
84-88	3.0
78-83	2.5
72-77	2.0
66-71	1.5
60-65	1.0
55-59	0.5
Below 54	0.0

Please note that the above figures are thresholds; for example, a percentage of 77.9% is below the threshold of 78% and therefore receives the grade 2.0.

Academic Honesty Policy

Academic Honesty is defined as ethical behavior that includes student production of their own work and not representing others' work as their own, by cheating or by helping others to do so.

Plagiarism

Plagiarism is defined as the failure to give credit for the use of material from outside sources. Plagiarism includes but is not limited to:

- Submitting other's work as your own
- Using data, illustrations, pictures, quotations, or paraphrases from other sources without adequate documentation
- Reusing significant, identical or nearly identical portions of one's own prior work without acknowledging that one is doing so or without citing this original work (self-plagiarism)

Cheating

Cheating is defined as obtaining answers/material from an outside source without authorization. Cheating includes, but is not limited to:

- Plagiarizing in any form
- Using notes/books/electronic material without authorization
- Copying
- Submitting others' work as your own or submitting your work for others
- Altering graded work
- Falsifying data
- Exhibiting other behaviors generally considered unethical
- Allowing your work to be submitted by others

Accessibility

Jackson College understands that cultivating a broadly diverse community is crucial to our educational mission and to our foundational commitment to leadership and service. Jackson College is fully committed to ensuring our courses are accessible to everyone including those with disabilities. We are currently working to increase accessibility and usability of our course materials in order to meet or exceed the requirements of Section 508 of the Rehabilitation Act of 1973, the Americans with Disabilities Act of 1991 and Web Content Accessibility Guidelines (WCAG) 2.0. For more information about Jackson College's efforts to ensure accessibility please visit the [Jackson College accessibility web page](#).

If you have an accessibility need in any of our classes please e-mail the Center for Student Success at JCCSS@jccmi.edu or visit the [Center for Student Success web page](#).

Support

At the Center for Student Success (CSS), we are committed to providing all students the opportunity to achieve academic success by providing a variety of support services free of charge to Jackson College students. This includes, but is not limited to, peer and faculty tutoring, mental health referral, temporary assistance with transportation, various workshops/seminars, and the TRIO program.

In addition, the CSS staff is committed to adapting the College's general services to meet the individual needs of otherwise qualified students with disabilities, for the purpose of providing equal access to all programs and facilities.

Oasis Center

During a student's college experience, one might encounter situations that impact their learning environment. When these situations occur, support from the Oasis Center is available to provide short-term assistance. If the situation requires ongoing support, the Oasis Center staff can provide that level of support or will assist the individual in securing an outside agency to provide it.

For more information visit the Jackson College Oasis Center webpage <https://www.jccmi.edu/the-oasis-center/>

Health Clinic

Jackson College has partnered with Henry Ford Allegiance Health to offer healthcare to Jackson College students and employees. The Jackson College Health Clinic (JCHC) is located on Central Campus in the Justin Whiting Hall, Room 111. The caring and professional staff at the JCHC provides quality healthcare, including annual exams (physicals, program physicals and sports physicals), acute and chronic illness care and preventative health care (It's Your Life).

For more information visit the Jackson College Health Clinic webpage <https://www.jccmi.edu/health-clinic/>

Dental Clinic

Community members may utilize Jackson College Dental Hygiene Clinic, which offers dental hygiene services while helping students gain experience. Students work under the supervision of license dental hygiene instructor and dentist as they offer preventative services.

For more information visit the Jackson College Dental Clinic webpage <https://www.jccmi.edu/dental-hygiene/dental-hygiene-dental-clinic/>

Course Management

(Indicate ways that students can manage their enrollment in a course for special circumstances. Includes withdrawal, and audit and incomplete grading procedures)

Makeup Policy

(Indicate ways that students can manage their enrollment in a course for special circumstances. Includes withdrawal, and audit and incomplete grading procedures)

Help

Available learning services or opportunities for students seeking help with their course work. May include information about tutors, learning centers, reserved library materials, counseling services.

Academic Advising

Student success navigators serve not only as academic advisors but as a student's academic, financial, and total resource advocate or coach.

Students will have an assigned navigator to meet with for advising and any questions they may have. Navigators will serve as the "go-to" person to help students throughout the college experience.

It is important to know your Student Success Navigator. You may find your Navigator by visiting this website <https://www.iccm.edu/academics/academic-advising/> and click on your pathway. You should also receive an email from your Navigator at the beginning of the semester.

Student Responsibilities

Requirements beyond scheduled classes or laboratories, e.g., clinicals, extra credit assignments, TBA sessions, field placement, special project instructions, contract learning conditions, study hours required outside class, unscheduled class meetings, attendance at concerts or other required events.

Attendance- Participation Policy

Regular class participation and keeping up on the reading and assignments is strongly correlated with survival in college. It is my recommendation that you plan to do your assignments and take your exams BEFORE the last day they are due. If problems occur, there is time to fix them before the deadline.

In compliance with Federal Title IV funding requirements, as well as college initiatives, I will be monitoring student participation on a regular basis and officially reporting student activity throughout the term to assure compliance with college policy and federal regulations. It is imperative that you log in to the course and actively participate within the first couple of days of the term to validate your enrollment in the course. After that, not actively participating in class may result in you being withdrawn from the course. Being withdrawn from a course can have an impact on financial aid, billing, athletic eligibility, and housing status. As a college student you are responsible for how your participation impacts your academic progress; the accountability lies with you.

Caveat

Please note: The format and timing of this course may need to change due to unforeseen circumstances. In particular: school closings, instructor illness, weather, or other situations that may arise.

If you are taking an in -person class, you will be required to complete a Reintegration Video Training course in JetNet prior to being admitted to campus.

All COVID safety protocols in place are based on current guidelines and will be enforced while students are on campus.

Tentative Schedule:

Week	Topic
March 14-20	Introduction, Module 1 and Module 2
March 21-17	Modules 2 and 3
March 28-April 3	Modules 4 and 5
April 4-10	Modules 6 and 7
April 11-17	Mid-term Exam, Module 8
April 18-24	Modules 9 and 10
April 25-30	Modules 11 and 12, Final Exam

This is a **tentative** schedule and may change as the semester progresses.