Course Title: Network+/Networking Fundamentals

Course Section: CNS-101-01

FORMAT: Face to Face

TIME FRAME:
Start Date: 05 September 2017
End Date: 23 October 2017

CREDITS: 4

INSTRUCTOR: Carlos J. Garcia

Office Hours: Monday – Wednesday 10am – 1pm by appointment

Email: garciacarlosj@jccmi.edu

Email Communication

- Please send emails from your JC account to be in compliance with federal privacy regulations.
- Provide a clear subject line.

Office: 517.796.8653

Cell: 517.759.8439

My preferred Method of contact is email. If you leave me a voicemail on my office number, it may be a few days before I reply, as I am seldom in my office. If you need to reach me for an urgent matter, please text, or text me, before you call my cell phone.

REQUIRED TECHNOLOGY: You must have access to an Internet connected computer. You are also expected to have "backup computer" plans; at a friend's computer, a relative's computer, JC, or at a library. Establish computer plans in case your usual computer access is disrupted during the semester.

Recommended Text:

Introduction to Network v6.0, Companion Guide
Cisco Networking Academy
ISBN: 978-1-58713-357-2

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

COURSE DESCRIPTION:

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

Course Overview

CCNA R&S: Introduction to Networks (ITN) covers networking architecture, structure, and functions. The course introduces the principles and structure of IP addressing and the fundamentals of Ethernet concepts, media, and operations to provide a foundation for the curriculum.

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.

This course is the 1st in the Cisco CCNA Routing and Switching curriculum. The course includes activities using Packet Tracer, hands-on lab work, and a wide array of assessment types and tools.

JCC Associate Degree Outcomes (ADO's): The Board of Trustees of Jackson Community College has determined that all JCC graduates should develop or enhance certain essential skills while enrolled in the college. These ADO's are described below in the Course Objectives for CNS 101.

Course Objectives:

- Explain fundamental networking concepts (ADO 7)
- Troubleshoot simple to moderate networking problems (ADO 7)
- Work with classmates to build and maintain a computer network (ADO 7)
- Use networking tools monitor and analyze the status of a network (ADO 7)
- Use the Internet to research networking information (ADO 7)
- Review relevant technical networking white papers (ADO 7)

COURSE STRUCTURE:

A ***variety of methods*** will be used to enhance your understanding of computer networking technology. Power point presentations, posted documents, and videos will present current issues in the discipline. Concepts from the readings will be discussed, so it is imperative that the required reading for each class be completed in advance. Assignments, quizzes, and active participation will be graded.

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

There will be a mid-term exam and two final exams. One of the final exams will be the Cisco Networking Academy Final, the other will be in the form of a quiz. Unlike the quizzes, they 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.

There are also midterm and final Skills Based Assessments using Cisco Packet Tracer.

Quizzes and exams are open-book.

Be careful with spelling, grammar, and punctuation. This is not an informal setting.

Assignments – APA Format
All students are required to use APA style for submitted papers. At a minimum include a title and reference page along with appropriate margins. If you need assistance in obtaining reference materials for APA format, I highly encourage you to contact the library or look online for the proper use of the APA style of writing. Additionally, include your name as part of the file name when submitting assignments online. Last Name first. For example: garciacarlosj_lab1.doc.

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.

EXPECTATIONS OF THE INSTRUCTOR:

1. Provide an innovative and interactive learning environment. For this to happen, I encourage you to give me honest, respectful feedback at appropriate times regarding what is working for you and what I (we) need to do differently.

2. Thoroughly read the material before date posted and be prepared to post and answer relevant questions related to that material. Provide adequate resources; if I don't know an answer I will do my best to find it!

3. Address your questions promptly as time allows.

4. Make adequate time available to answer additional questions you may have.

5. Give helpful feedback regarding your work.

6. Treat each person with dignity and respect, professionally exhibiting Jackson College values of: Integrity, Caring, Collaboration, Quality, Inclusion, Service and Leadership.

EXPECTATIONS OF THE STUDENT:

1. Submit your work on time. <u>No late work will be accepted.</u> Please carefully read the description for each piece of required work. Be prepared to ask and clarify any questions.

2. Do your part in making this experience valuable for you and your classmates. How do you do that? Be prepared. Think creatively. Participate actively and treat others respectfully.

3. If you are unavailable for any reason, inform the instructor ahead of time when and why this will occur. You are still responsible for any material presented or any assignments given.

EVALUATION:

End of Chapter Exams	10%
End of Chapter Quizzes	10%
Student Discussions	10%
Chapter Labs	10%
NetLabs	10%
Skills Based Assessment	20%
Midterm	15%
Final	15%

GRADING: Final grades will be assigned according to the following scale:

Scale:

Percentage	Grade
94-100	4.0
88-93	3.5
82-87	3.0
76-81	2.5
70-75	2.0
64-69	1.5
58-63	1.0
52-57	0.5
Below 52	0.0

Please note that the above figures are thresholds; for example, a percentage of 69.9% is below the threshold of 70% and therefore receives the grade 1.5.

Note: This syllabus is not a contract: it is a plan for the course. Each course and each group of students is unique. We may do more or less work than is outlined above. Total points in the course may be altered to reflect the dynamics of our class.

SPECIAL POLICIES

- **ACADEMIC HONESTY**: Adaptation from Jackson College policy: Academic honesty is expected from all students. It is the ethical behavior that includes producing one's own work and not representing others' work as their own, either by plagiarism, by cheating, or by helping others to do so. Faculty members who suspect a student of academic dishonesty may penalize the student by assigning a failing grade for the paper, project, report, exam or the course itself.

- **WITHDRAW DEADLINE**: If you do not wish to receive a grade for this class, because you are not happy with your grade or for any other reason, you must withdraw before the date printed on the college website.

- **INCOMPLETE GRADES** are rarely given for this course. Adaptation from Jackson College policy: A student may request an incomplete grade from the instructor. The incomplete grade will be granted only if the student can provide documentation that his or her work up to that point is sufficient in quality, but lacking in quantity, due to circumstances beyond the student's control. Furthermore, a written plan for making up the missing work within one semester must be completed by the student. Final determination of whether an incomplete grade will be given is the instructor's decision.

- **SPECIAL NEEDS:** Students with disabilities who believe that they may need accommodations in this class are encouraged to contact the office of Learning Support Services at 517-787-0800, extension 8270/8533 as soon as possible to ensure that such accommodations are implemented in a timely fashion.

Tentative Course Calendar All work is due by 11:59PM on Saturdays			
Week	**Dates**	**Topics**	**Assignment**
1	05 – 09 Sep	Course Introduction Chapter 1 Explore the Network	Intro post Packet Tracer Tutorial PreTest Chapter 1 – Quiz Chapter 1 – Exam Chapter Labs
2	10 – 16 Sep	Chapter 2 Configure a Network Operating System Chapter 3 Network Protocols and Communications	Chapter 2 – Quiz Chapter 2 – Exam Chapter Labs Chapter 3 – Quiz Chapter 3 – Exam Chapter Labs
3	17 – 23 Sep	Chapter 4 Network Access Chapter 5 Ethernet	Chapter 4 – Quiz Chapter 4 – Exam Chapter Labs Chapter 5 – Quiz Chapter 5 – Exam Chapter Labs
4	24 – 30 Sep	Chapter 6 Network Layer	Chapter 6 – Quiz Chapter 6 – Exam Chapter Labs

5	01 – 07 Oct	Midterm Exam Chapter 7 IP A**ddressing** Chapter 8 Subnetting IP Networks	Chapter 7 – Quiz Chapter 7 – Exam Chapter Labs Chapter 8 – Quiz Chapter 8 – Exam Chapter Labs
6	08 – 14 Oct	Chapter 9 Transport Layer Chapter 10 Application Layer	Chapter 9 – Quiz Chapter 9 – Exam Chapter Labs Chapter 10 – Quiz Chapter 10 – Exam Chapter Labs
7	15 – 21 Oct	Chapter 11 Build a Small Network	Chapter 11 – Quiz Chapter 11 – Exam Chapter Labs
8	23 Oct	Skills Based Assessment (All Chapters) Final Exam 1 (All Chapters – Cisco Netacad) Final Exam 2 – Online All Chapters	