

School of Computing and Information Science

Course Title: IT Fundamental

Date: 11/22/2019

Course Number: CGS 2XXX

Number of Credits: 3

Subject Area: IT Certifications	Subject Area Coordinator: Michael Robinson email: michael.robinson@cs.fiu.edu
Catalog Description: This course is designed to prepare students with the required knowledge to design, assemble and install the hardware and software needs of an organization. Not acceptable for SCIS majors.	
Textbook: None. Reading materials will be distributed throughout the semester	
References: Online resources	
Prerequisite Courses: None	
Corequisite Courses: None	

Type: Required for Embrace.

Audience: For non-SCIS undergraduate students will be exposed to the course materials listed in the course outline. Students from any non-SCIS majors are accepted.

Prerequisite Topics:

- None

Course Outcomes:

Students who successfully complete this course will be able to:

1. Be familiar with the Fundamentals in the IT industry.
2. Be familiar with the design, construction, upgrades, repairs, and warranties steps of Clients/Workstations computers.
3. Be familiar with the design, construction, upgrades, repairs, and warranties steps of Laptop computers.
4. Be familiar with how CAT network cables are made.
5. Be familiar with the design, construction, upgrades, repairs, and warranties steps of Server computers.
6. Master installation and setup of Operating Systems and user software.
7. Be familiar with the design, construction, installation, and maintenance of computer networks.
8. Be exposed to A+ 1001 rules and concepts.

Outline:

Topic	<u>Hours (Total: 37.5 hours = 15 weeks * 2 lectures/week * 1.25 hrs/lecture)</u>	<u>Outcome</u>
1. Introduction: Why IT Fundamentals?	1	<u>1</u>
2. Clients/Workstations: Design and Construction from the Ground up, upgrades, repairs, and warranties.	3	<u>1,2</u>
3. Laptops: Design and Construction from the Ground up, upgrades repairs, and warranties.	3	<u>1,3</u>
4. Understanding and making CAT Cables using RJ45 connectors and multiple tools	2	<u>1,4</u>
5. Servers: Understanding the Design and Construction from the Ground up, upgrades repairs, and warranties.	1	<u>1,5</u>
6. Servers Operating Systems Installation.	1	<u>1,6</u>
7. Servers Creating users and rights.	2	<u>1,6</u>
8. Clients/Nodes Operating Systems Installation.	2	<u>1,6</u>
9. Clients/Nodes Software Installation.	2	<u>1,6</u>
10. Connecting Servers to Switches.	.5	<u>1,6</u>
11. Connecting Clients/Nodes to Switches.	.5	<u>1,2,3,6</u>
12. Installing and connection Power Backups.	.5	<u>1,7</u>
13. Printers Network/Local cabling and installations	1.5	<u>1,7</u>
14. Making 3 Unique Server Quotes	2	<u>1,5,7</u>
15. Desktops, Laptops, A+ 1001 sect 0 & 1.1	2	<u>1,8</u>
16. Laptops A+ 1001 sect 1.2 thru 1.7	2	<u>1,8</u>
17. Covering A+ 1001 sect 2.1 thru 2.4	2	<u>1,8</u>
18. Covering A+ 1001 sect 2.5 thru 2.8	2	<u>1,8</u>