

# Network Design & Implementation

## CIS-295 \*Tentative Syllabus\*

**Instructor:** Brent Fulton      **Office:** T162I - CIS Department      **e-mail:** brent@hfcc.net

**Office Hours:** MW: 12-1pm, 3-5:30pm,  
TTH: 12-1pm, 2:30-3pm

**Phone:** (313)845-6426

---

### Course Description

This is the final course in the Network Administration degree program. This capstone course provides learning experiences in the design, implementation and support of a Local Area Network. This course covers basic LAN design methods and tools, Network Operating Systems, LAN implementation considerations, LAN hardware, and network troubleshooting techniques. Students will design and implement an actual LAN in the lab complete with file servers, workstations, hubs, switches, and routers.

### Course Objectives

Analyze customer requirements for a new Local Area Network (LAN).

Design a LAN solution detailing structured cabling components, desktop and server hardware, network operating systems, and network administration tools.

Document the design solution with materials and equipment lists, cable installation drawings, telecommunications and server room layouts, software versions and compatibility lists, and budget requirements.

Demonstrate design feasibility by implementing a LAN prototype with all required functionality including servers, workstations and network infrastructure.

Define a technical project plan and timeline for implementation.

Discuss overall project benefits, possible technical issues and required resources to complete the project.

## **How to Determine Your Final Grade**

### **Lab Project:**

System design project (Individual & Group).....	40%	(4 Parts) (10% Each)
Implementation of System (Individual & Group) .....	35%	
System Documentation, Time Comparison & Evals.....	5%	
NOCTI Exam (REQUIRED).....	10%	

### **Grading Scale**

<b>A</b>	<b>92% - 100%</b>
<b>B</b>	<b>83% - 91%</b>
<b>C</b>	<b>74% - 82%</b>
<b>D</b>	<b>65% - 73%</b>
<b>E</b>	<b>Below 65%</b>

**NOTE: That is 92% - 100% for an A**

## **Dropping the Class**

To receive a drop (DR) for the class, *the student must officially drop the class.* Tuition will be refunded according to the policy stated in the class schedule booklet received during enrollment.

## **Cheating**

Cheating will result in an "E" for that assignment and your final class grade will be lowered by 2 full grades. The college policy on Academic Dishonesty (cheating) will be enforced. See the class schedule for the complete policy.

## **Lab Hours**

As needed.