**INFS 3338 Network Project**

Choose a small-to-medium size business to use as your project “client”. This can be an actual or imagined business.

**Part 1** – In about one page, briefly describe your client business: the industry, operations and services offered, internal functional areas, size, departments, and physical layout (a building, a floor of a large building, multiple buildings, etc).

**Part 2** – Create a table which maps the network services you will supply, to the departments of the business, and the functions each one is carrying out.

**Part 3** – Based on your business’s needs, make a table showing the software your company will be using. This doesn’t need a lot of detail; if you’re running Windows PC’s, then for example, “Windows 10 – 84 seat licenses” is sufficient. Don’t forget to include server software of various types. You can assume that actual network devices come with firmware, and do not need to be included here.

**Part 4** – Based on your business’s needs, make a table showing the actual devices you will need to purchase to build the network from scratch. When you select switches, for example, pick a manufacturer and a specific model which properly supports your network needs. The table should include the device type, brand and model, price, and number purchased.

**Part 5** – Create a graphic which illustrates the \*\*logical\*\* layout of the network. This should include the corporate “edge”, internal network segments, and the devices included in each. This graphic should match up correctly with the list of equipment in part 4.

Your business will have a Class C network address space. This diagram will also include the subnet design used to separate different portions of your network. Because you’re supplying a small-to-medium size business, plan for no more than 14 different network subnets.

**Part 6** – Create a graphic which illustrates the actual physical layout. These should be floor plan diagrams, with desks, doors, and cabinets marked. Icons will show the devices included at each physical location, with cable runs between workstations, switches, routers, servers, etc. This graphic should also match up correctly with the list of equipment in part 4.

Depending on your business’s setup, you’ll probably need multiple pictures here, one for each physical room if it’s a large room, or at least one per building floor.

Unlike the diagram in Part 5, this one needs to have network equipment “closets” or “cabinets” where the physical devices actually reside. A server room is a good idea, for example.

Print everything clearly, label each part, collect your material into a thin 3-ring binder, submit as hard copy. Your first page should contain the full names of all your team members.