

## Data Communications

### Research Paper Guidelines

Due Date: May 1 Choose one of the following topics.

Topic1: Discuss fiber optics in Data Communications.

Include subtopics of:

The history of optical fiber.

What need does it fill.

Technical aspects and challenges of implementation.

Usability and reliability

Advantages and disadvantages compared to wired and radio transmission media.

Topic2: Discuss the newer wireless Class 'N' 802.11 standard.

Include subtopics of:

How is it different from Class 'G'.

Costs and reliability.

Technical aspects and challenges of implementation.

Advantages and disadvantages.

Topic3: Discuss the transition digital television broadcasting.

Include subtopics of:

How is it being implemented.

Costs, effect on the user.

Technical aspects and challenges of implementation.

Advantages over analog.

Discuss what will occupy the freed up communications bandwidth.

Format: Use Modern Language Association (MLA) as your guide for formatting the paper.

Length: Six (6) typewritten pages, which do **not** include the cover, bibliography and footnotes pages.

Specs: The **full** Six (6) page body of your paper should be double-spaced, use 12-point letter (font) size and have margins no larger than 1 inches on each side, top and bottom.

You should have at least eight bibliographic references from **reliable** and **scholarly** sources. This means that the sources stand up to peer review. Sources such as Wikipedia are **not** scholarly nor reliable.