

CMPSCI 105: Lecture #7.5  
Introduction to  
Typefaces and Fonts

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Everybody knows what an “A” looks like, right? (See your report card!)

- A **A** A A A
- **A** A A A A
- **A** A A A A
- **A** **A** A A A

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All characters from each alphabet below “belong” together:

- A B C D E F G ...
- A B C D E F G ...
- **A B C D E F G ...**
- A B C D E F G ...

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Even across different languages:

- A B C D E F G H ...
- A B Γ Δ Ε Θ Ξ Ο Π Ρ Σ ...

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### Origins

- We inherit a lot of modern notation in word processing from the old typographers (think: Gutenberg)...
- ...but, we get a lot wrong, too!
- For example: Most text dialogs (both Mac and Windows) use the word “font” when they should use the word “typeface”.

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### Examples of Typefaces

- ABCDEF GHIJ... (Arial)
- ABCDEF GHIJ... (Times)
- ABCDEF GHIJ... (Courier)
- ABCDEF GHIJ... (Courier Bold)**

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## Fonts vs. Typefaces

**TYPEFACE:**

Set of characters from an alphabet with common shape design characteristics.  
(Times Roman, Courier, Arial, etc.)

**FONT:**

A Typeface at a particular weight, style, and point size.  
(Times Roman Bold 12 point)

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## Some Sample Text

Aefg

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## Base Line

Aefg

A horizontal red line is drawn across the bottom of the letters 'A', 'e', 'f', and 'g'. The label 'Base Line' is positioned to the right of the line.

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## Body/Mean Line

Aefg

Two horizontal lines are drawn across the text 'Aefg'. The top line is red and labeled 'Body Line' on the right. The bottom line is blue and labeled 'Base Line' on the right.

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## Descender Line

Aefg

Four horizontal lines are drawn across the text 'Aefg'. From top to bottom: a red line labeled 'Body Line', a blue line labeled 'Mean Line', a blue line labeled 'Base Line', and a red line labeled 'Descender Line'.

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## Cap Line

Aefg

Five horizontal lines are drawn across the text 'Aefg'. From top to bottom: a red line labeled 'Cap Line', a blue line labeled 'Body Line', a blue line labeled 'Mean Line', a blue line labeled 'Base Line', and a red line labeled 'Descender Line'.

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### Ascender Line



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### How Font Size is Measured



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### Font Size is Measured in "Points"

Traditional: 72.27 points/inch  
Modern: 72 points/inch



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### Letter Spacing

MONOSPACING (Courier New)

William

PROPORTIONAL SPACING (Times New Roman)

William

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### Kerning

WITHOUT KERNING

AVAILABLE SALT

WITH KERNING

AVAILABLE SALT



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### Kern Pairs

COMMON KERN PAIRS

AV VA AT TA LT  
LV PA Ya Ye Yo  
Ta Te To Ty

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### Ligatures

LIGATURES (TIED TOGETHER)

**Œ = OE, œ = oe**  
**Æ = AE, æ = ae**  
**ffi = f f i**

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### Serifs vs. Sans Serif Typefaces

→ Times New Roman (serif)  
→ ↑ ↓ ↓ ↓  
Arial (sans serif)

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