

The background of the slide is a grayscale image of a circuit board. It features a complex network of black lines representing traces and several solid black circles representing vias or components. The circuitry is arranged in a somewhat symmetrical, horizontal pattern. A solid black horizontal band runs across the middle of the image, partially obscuring the circuit board design. In the center of this dark band, the text 'CMSC 131' is displayed in a large, white, sans-serif font. Below it, the text 'Fall 2018' is written in a smaller, green, monospace-style font.

CMSC 131

Fall 2018

Announcements

- Project #1 (Orioles Baseball) is due on Sunday
- Clarification about 80 character line-length limit
- Do the study questions

Repetition

Why do we need this?

Two basic techniques:

- Loops (starting today)
- Recursion (later)

While loops

```
while(<boolean condition>) {  
    <put statements here>  
}
```

Example: `SimpleWhile.java`, `BaseConverter.java`

do-while Loops

```
do {  
    <put statements here>  
} while(<boolean condition>);
```

Example: `SimpleDoWhile.java`, `AnotherDoWhile.java`

For Loops

One common example:

```
int i = 0;
while (i < 1000) {
    <do something>
    i = i + 1;
}
```

```
for (int i = 0; i < 1000; i = i + 1) {
    <do something>
}
```

Examples: `SimpleForLoops.java`, `FastArithmetic.java`