

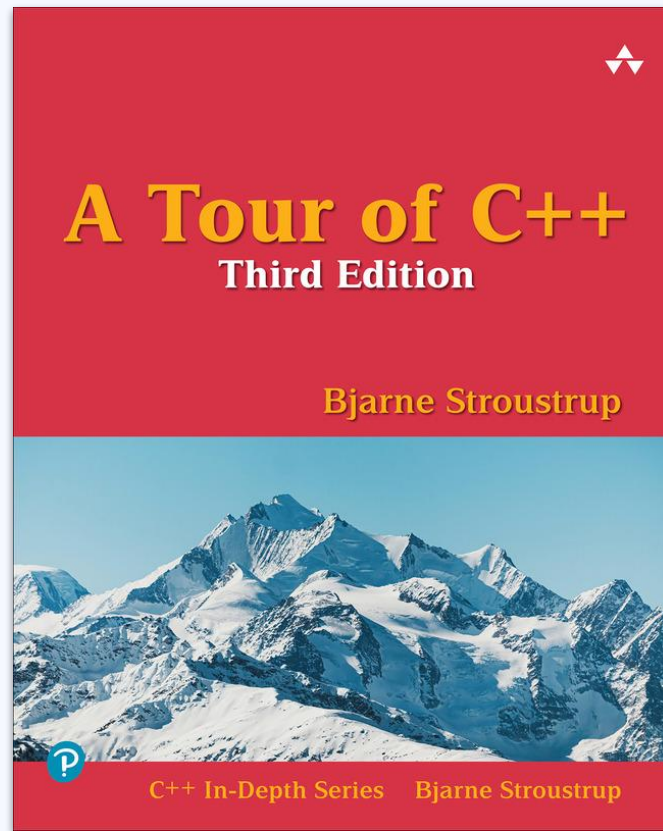


Scope and Const

CSE 232 – Dr. Josh Nahum

Reading:

Section 1.5 and Section 1.6





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Scope



Scope Example

```
#include <iostream>

int main() {
    int x = 4;
    double y = 3.15;
    while (x < 100) {
        y += 1;
        std::cout << y;
        double z = x + y;
        x = z / 4;
        std::cout << " " << x << "\n";
        --x;
    }
    std::cout << y;
}
```

What is the scope of:

- x
- y
- z

Narrow Scope

Declare (and initialize) variables with as narrow a scope (short lifetime) as possible. Leads to clearer code and simpler debugging.

Create variables only when you are ready to use them.



Mayfly (with a short lifetime)



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Const



const Style

const West

• Example

`const int x;`

• Support

More common; used in the reading

East const

• Example

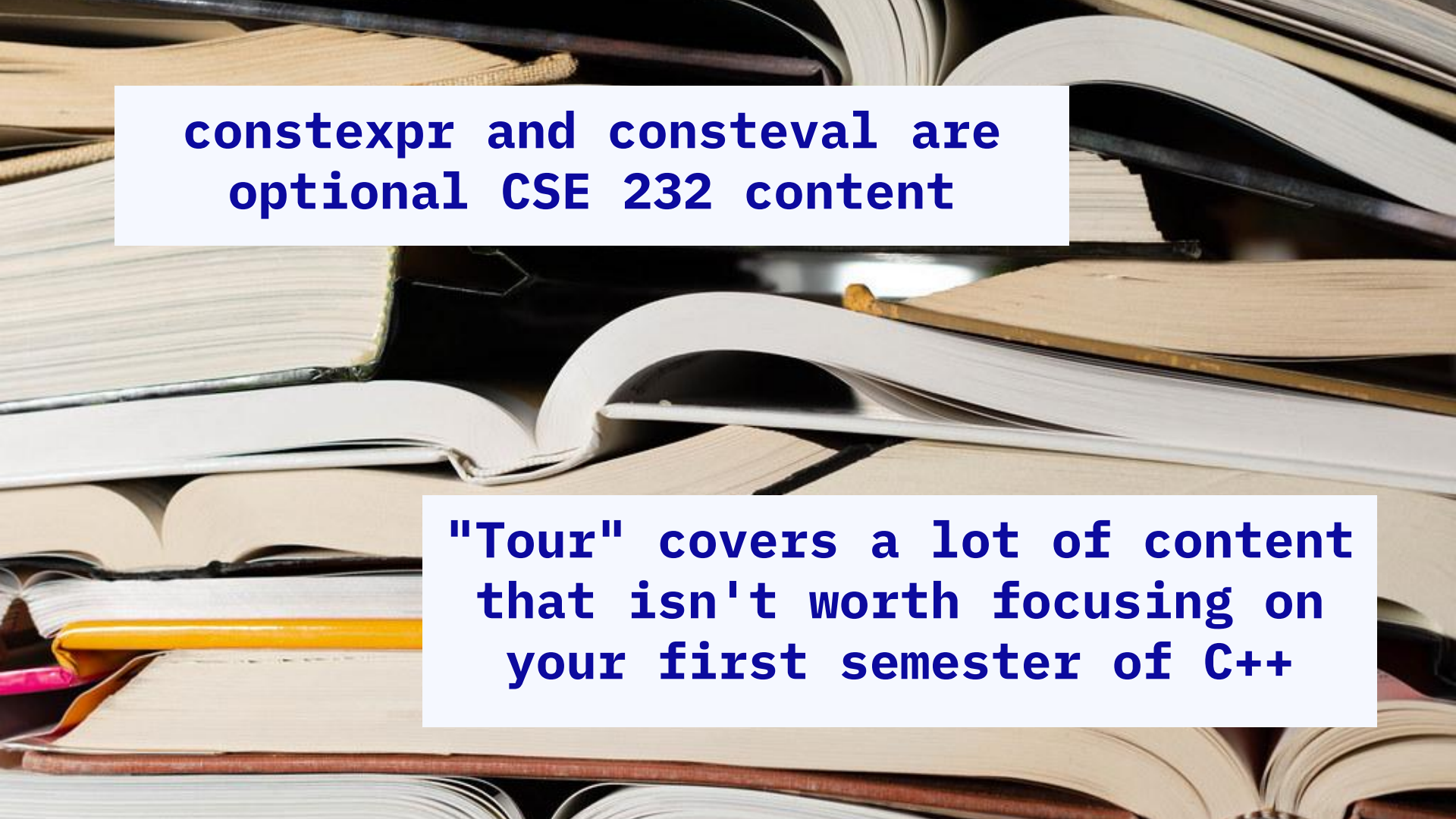
`int const x;`

• Support

More consistent (especially when the types get more complicated); gaining popularity

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**constexpr and consteval are
optional CSE 232 content**

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**"Tour" covers a lot of content
that isn't worth focusing on
your first semester of C++**

Attribution

Please ask questions via Piazza

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