CS 4/510
Compilers & Interpreters

29 March 21
COMPILING (+INTERPRETING) "C" HLL

X86-64 + RTS

TOPICS

COMPILER STRUCTURE
PROGRAM REPRESENTATION
MACHINE CODE GENERATION
REGISTER ALLOCATION
GARbage COLLECTION
DATAFLOW ANALYSIS
OPTIMIZATION
CORRECTNESS
NOT COVERED

Front End (Parsing)

Functional Language Details

OO Language

Concurrency

Heterogeneous Systems

SIT Compilation

Why Teams?

Community of fellow-sufferers

Pair Programming

Share Workload

Socialization

Better Feedback (Lazy Instructor?)
Example:

```
JAVA
```

```
foo.java
```

```
Javac
```

```
Foo.class
```

```
javac -version
```

```
output:
```

```
machine code
```

```
input:
```

```
set to?
```

```
mutton coat
```

```
Suncoast
```

```
some soft
tiny
```

```
output
```