CS 460
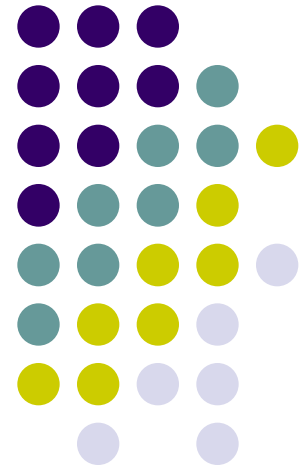
Programming Languages
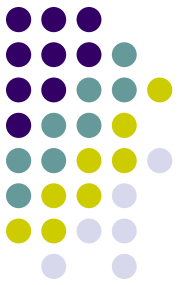
Fall 2023

Dr. Watts

(18 September 2023)
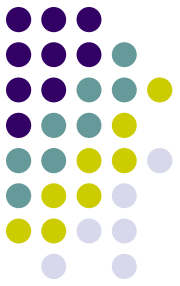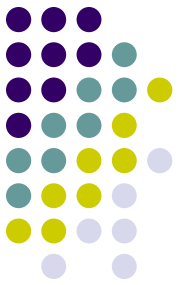
Course Administration

- Exercise 2 Preliminary Exercise

- Project 1 Preliminary Exercise

Class money constructors and destructor

```
// Constructors
money ();
money (const money & M);
money (int D, int C);
money (const string & S);
money (double M);


// Destructor
~money ();
```
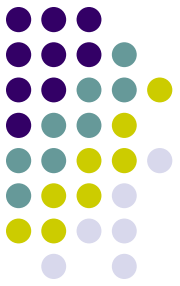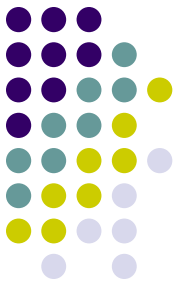
Class money operators

```
// Assignment
money & operator = (const money & M);
// Extraction (input)
friend istream & operator >> (istream &
      input, money & M);
// Insertion (output)
friend ostream & operator << (ostream &
      output, const money & M);
```

Class money operators

```
// Arithmetic operators
money operator + (const money & M) const;
money operator += (const money & M);
money operator – (const money & M) const;
money operator –= (const money & M);
money operator * (const double & F) const;
money operator *= (const double & F);
money operator / (const double & F) const;
money operator /= (const double & F);
money operator % (const int & F) const;
money operator %= (const int & F);
money operator ++ (); // Pre increment
money operator ++ (int); // Post increment
money operator –– (); // Pre decrement
money operator –– (int); // Post decrement
```

Class money operators

```
// Logical operators
bool operator == (const money & M) const;
bool operator != (const money & M) const;
bool operator < (const money & M) const;
bool operator <= (const money & M) const;
bool operator > (const money & M) const;
bool operator >= (const money & M) const;
```
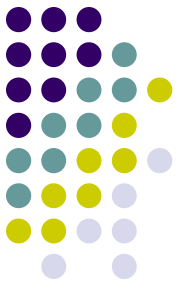
Class money mutators and accessors (not discussed)

```
// Accessors and Mutators
unsigned getDollars () const;
unsigned getCents () const;
void setDollars (unsigned D);
void setCents (unsigned C);
unsigned * getCurrency () const;
void setCurrency (unsigned * C) const;
unsigned & Dollars ();
unsigned & Cents ();
```