

**CS 2010 Computer Programming Fundamentals**  
**Week 3 Input/Output and Conversions (Pair Programming)**  
Due Sunday, 14 February 21

- Assignment descriptor: inches\_to\_yards
  - Filename example: Williams+August\_wk3\_inches\_to\_yards\_v3.py
  - Filename explanation:
    - *Williams+August*: Submitted by Kevin Williams and Stephanie August
    - *wk3*: This is a week 3 assignment
    - *inches\_to\_yards*: the assignment descriptor is inches\_to\_yards (note underscores, not spaces!)
    - *v3*: This is version 3 of the code
- Read [Thinking Like a Computer Scientist](#)
  - General Introduction
  - Simple Python Data
  - Debugging Interlude 1
- Be familiar with the
  - Python Coding Standards (Python\_coding\_standards.py)
  - Python input/output example (pyInputOutputP3.py)
  - Python error handling example (while\_awaiting\_valid\_input.py)
- Write a sequence of statements in Python that will:
  - Ask the user for a number of inches
  - Convert the input to an integer
  - Calculate the equivalent number of yards
  - Give the remainder in feet and inches rather than as a fraction of a yard
  - The program should
    - Describe for the user the desired format of the input
    - Check whether the input is appropriate
    - Return the results with an explanation, e.g.,
      - 49 inches are equivalent to one yard, one foot, and one inch.
- Strategy:
  - Get basic program running, then add features as time permits.
  - Try to do as much as you possibly can
  - But a simple running version is better than no running code at all

- Upload to the assignment as three separate files (not a zip file):
  - Program description in a PDF that includes
    - Brief description of what your program does and how it does it
      - Follow the example in Python Resources > Sample submission files
    - Flowchart for your program
  - Python program in a text file with a .py extension
  - README file in an ASCII text (.txt) file that
    - Briefly describes the program
    - Tells the user how to run the program
- Self-evaluation checklist:
  - ☐ Python program in a text file with a .py extension
    - ☐ Content
      - ☐ Ask the user for a number of inches
        - ☐ Describe for the user the desired format of the input
        - ☐ Check whether the input is appropriate
      - ☐ Convert input to integer
      - ☐ Calculate equivalent number of yards
      - ☐ Give the remainder in feet and inches rather than as a fraction of a yard
      - ☐ Use `/`, `//`, `%` operators
    - ☐ Presentation
      - ☐ Correct spelling and grammar
      - ☐ File header with history
      - ☐ Comments
  - ☐ Description of your program
    - ☐ Identifying information UR Corner
    - ☐ Follow example in Python Resources > Sample submission files
    - ☐ Flowchart for your program
      - ☐ Accurately reflects design
      - ☐ Correctly constructed
      - ☐ Clearly presented
  - ☐ README file