Smith College
Computer Science

CSC 111
Introduction to
Computer Science

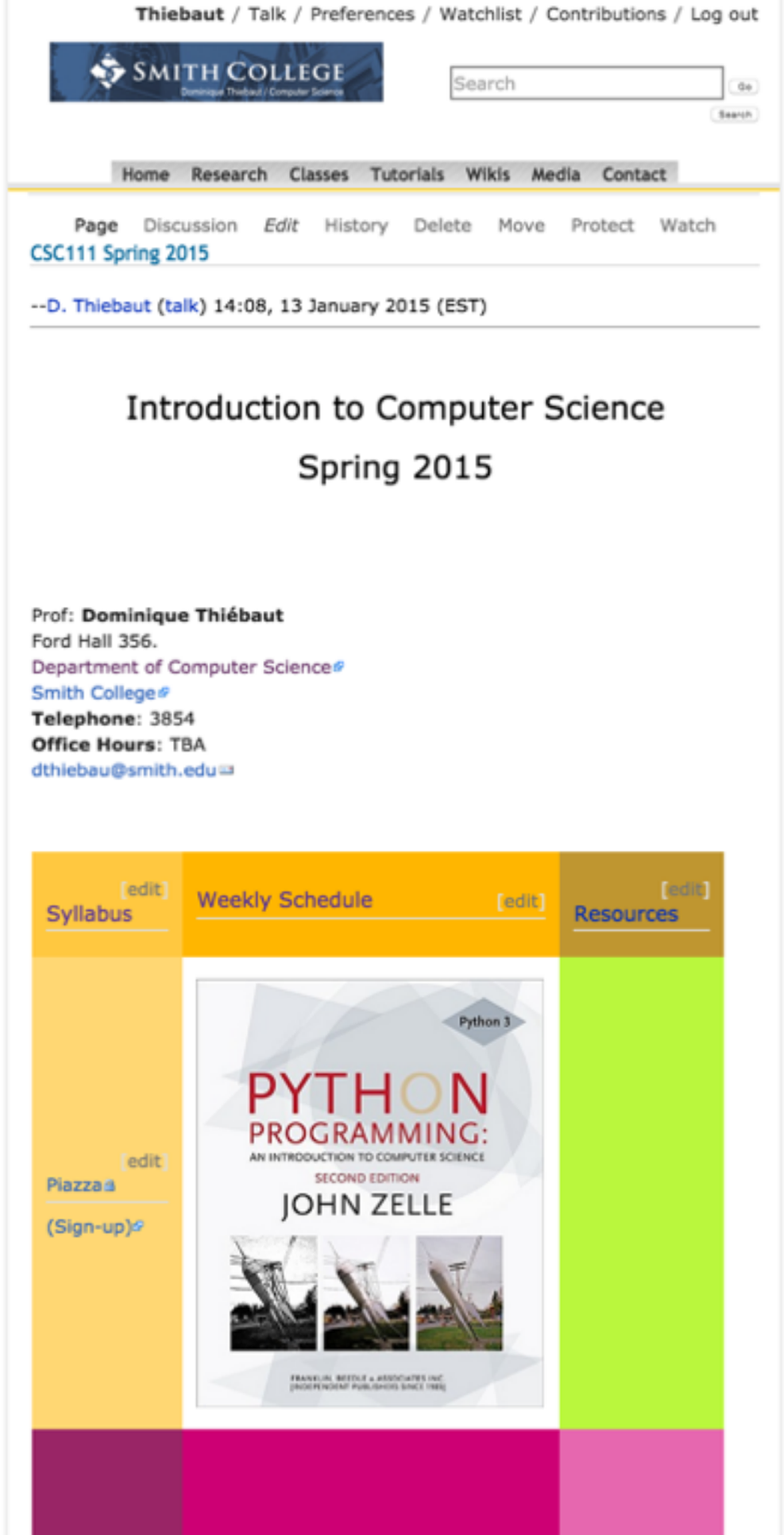
Dominique Thiebaut
Spring 2015

Dominique Thiébaut
dthiebaut@smith.edu

Today:

- Class **Web Page**: http://tinyurl.com/1112015

- **Syllabus**
- **Piazza**
- **Moodle**
- **Python** & **Idle**
- **Waiver forms** & **Registration**

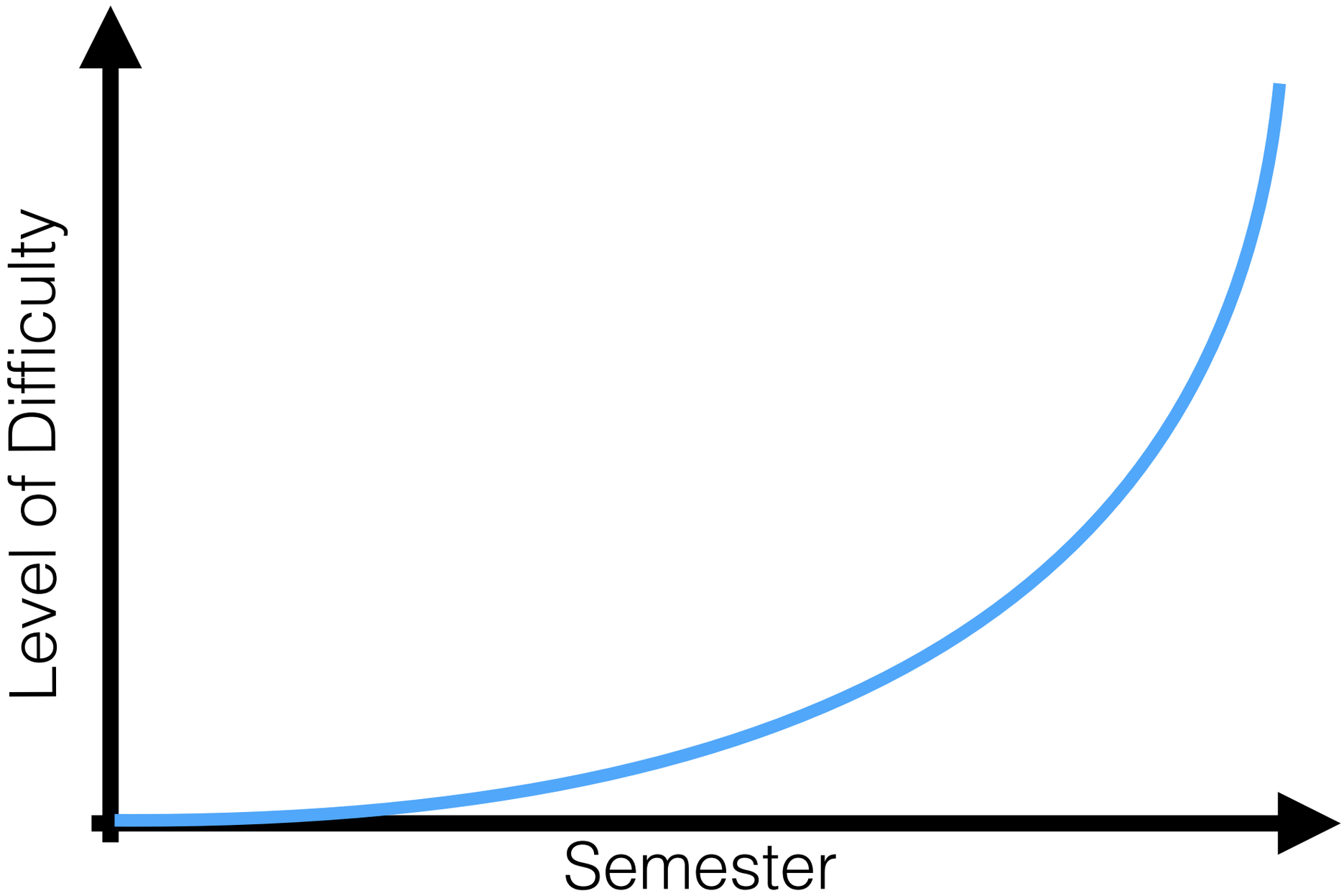


Syllabus

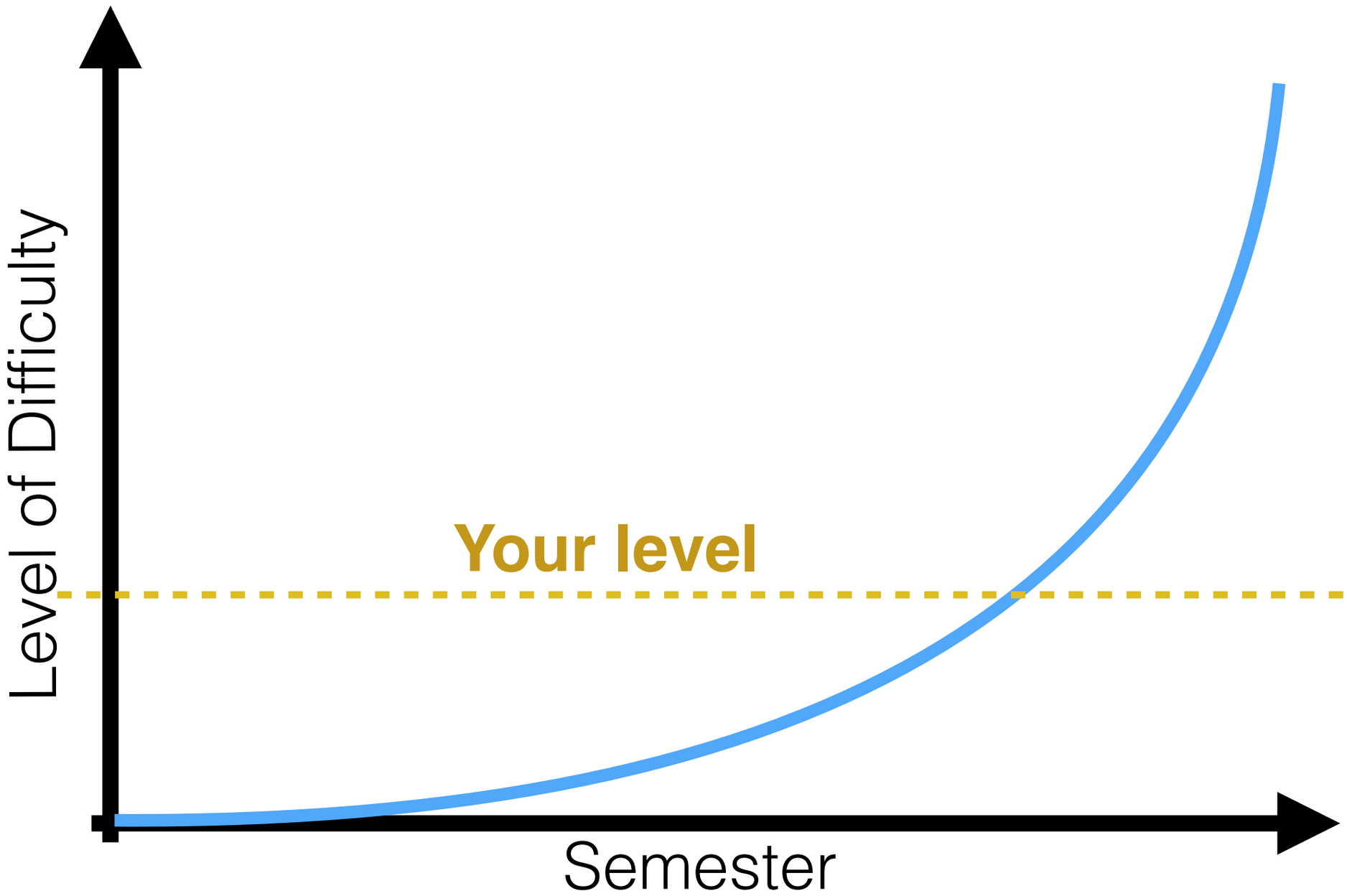
- http://tinyurl.com/1112015
- http://cs.smith.edu
  - faculty
    - D. Thiebaut
      - more info

Please answer the Survey!

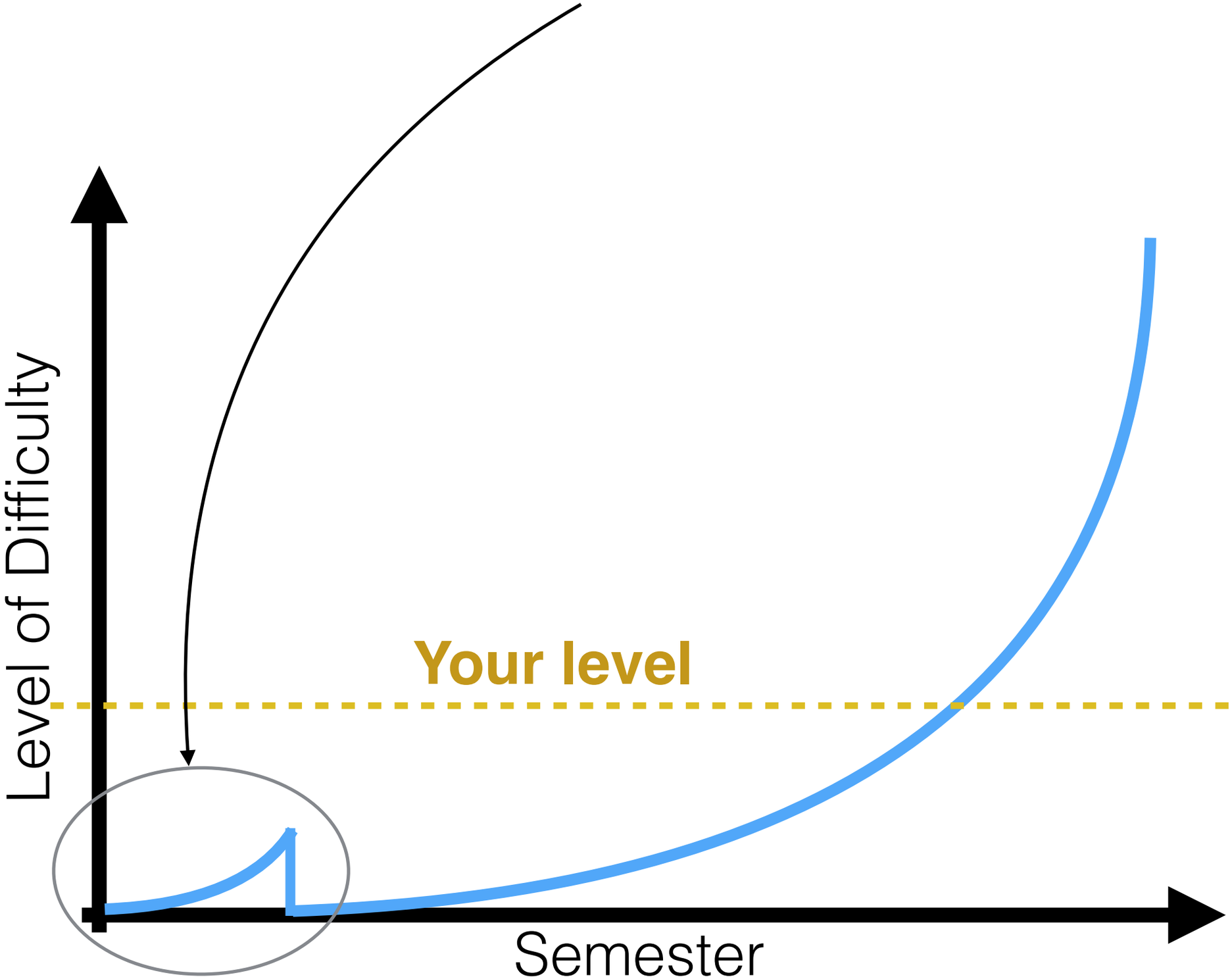
CSC111: Amount of Work



CSC111: Amount of Work



This week…



Goals for this Week

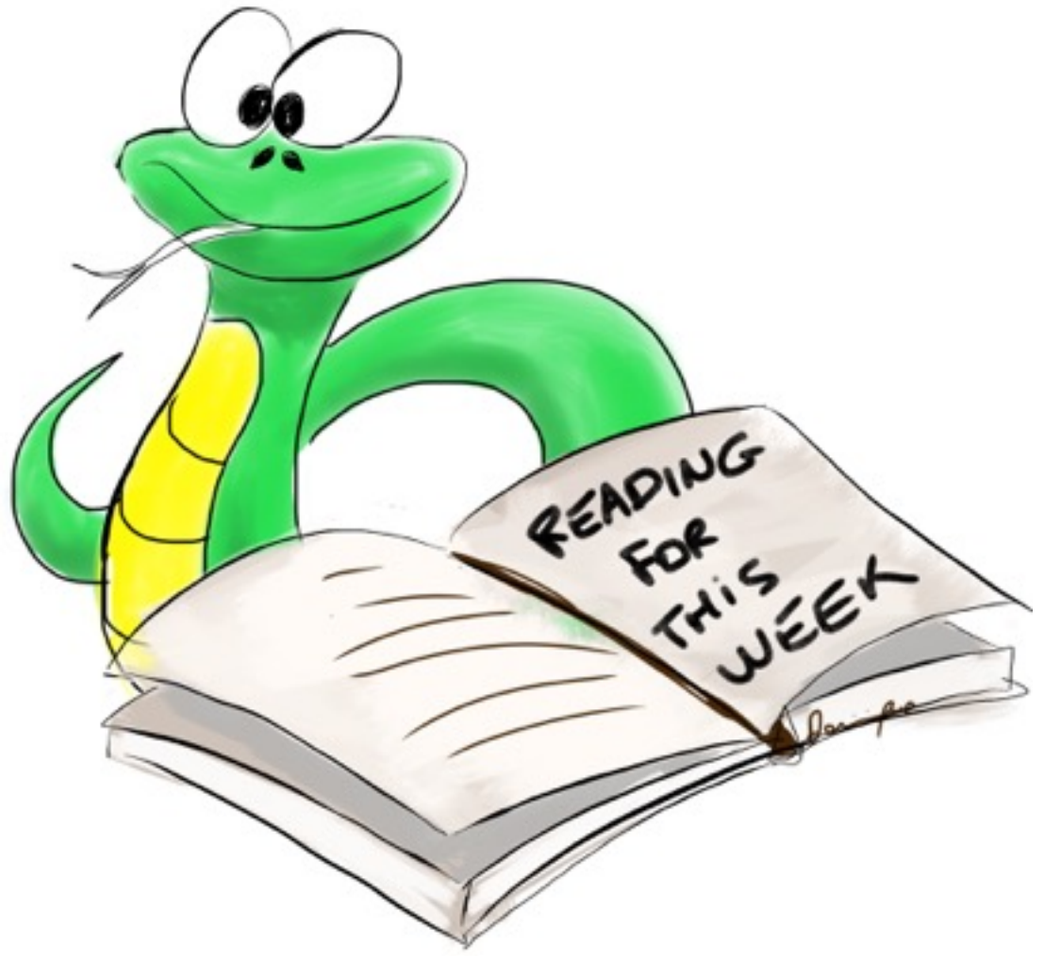
- Learn how to use **Idle**
- Write simple programs that use **variables, for loops,** and **output** information
- **Install** Python and Idle on laptop (optional)
- Learn how to **submit** Python programs to **Moodle** (lab+homework)
- Do **Lab #1** and start on **Homework #1**

Rule for Laptop Use in Class

- Laptops **welcome** for note-taking, accessing class Web page, and for running Python programs

- All other use is **forbidden**

Reading



- Read **Chapter 1** in John Zelle's *Python Programming,* up to Section 1.7 included

What is a Programming language?

Important Concepts…

- **Syntax and keywords**

  and del from not while as elif global or with assert else if pass yield break except import **print** class exec in raise continue finally is return **def for** lambda try

- **Algorithm**

- Python is an **interpreted** language

Interpreted vs. Compiled

vs.

An Example Program

example1.py - /Users/thiebaut/Desktop/Dropbox/111/example1.py

```
# A simple program taken from Zelle, Chapter 1
# D. Thiebaut

def main():
    print( "This program illustrates a chaotic function" )
    x = eval( input( "Enter a number between 0 and 1: " ) )
    for i in [ 1, 2, 3, 4, 5, 6, 7, 8, 9, 10 ]:
        x = 3.9 * x * ( 1 - x )
        print( x )

main()
```

Ln: 12 Col: 0

INDENTATION IS IMPORTANT

COMMENT

DIFFERENT COLORS: SYNTAX HIGHLIGHTEING

example1.py - /Users/thiebaut/Desktop/Dro .py

```
# A simple program taken from Zelle, Chapter 1
# D. Thiebaut

def main():
    print( "This program illustrates a chaotic function" )
    x = eval( input( "Enter a number between 0 and 1: " ) )
    for i in [ 1, 2, 3, 4, 5, 6, 7, 8, 9, 10 ]:
        x = 3.9 * x * ( 1 - x )
        print( x )

main()
```

SPECIAL TOOL: EDITOR I D E

Integrated
Development = **IDLE**
Environment

Integrated
Development
Environment

= **IDLE**

Integrated
Development
Environment

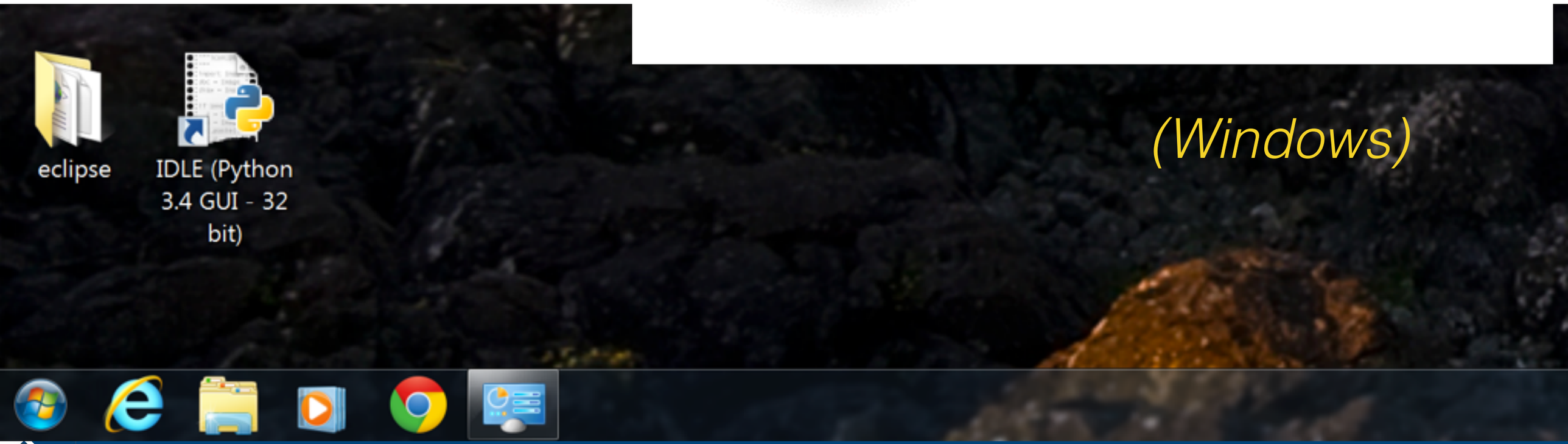
= **IDLE**

python™

(MAC)

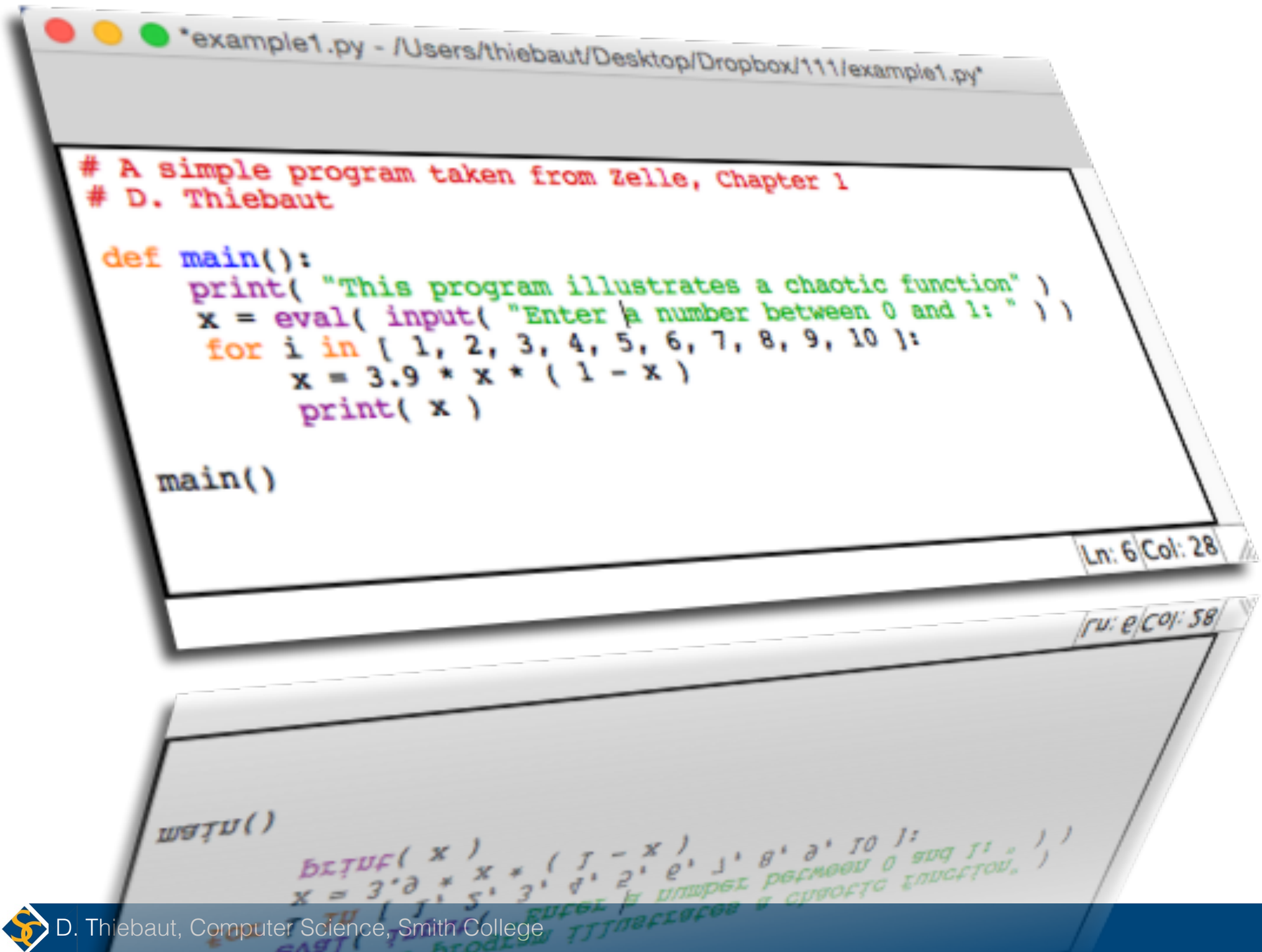
Integrated
Development
Environment

= **IDLE**



(Windows)

DEMO TIME!


example1.py - /Users/thiebaut/Desktop/Dropbox/111/example1.py
# A simple program taken from Zelle, Chapter 1
# D. Thiebaut
def main():
print("This program illustrates a chaotic function")
x = eval(input("Enter a number between 0 and 1: "))
for i in [1, 2, 3, 4, 5, 6, 7, 8, 9, 10]:
x = 3.9 * x * (1 - x)
print(x)
main()
Ln: 6 Col: 28

Concepts to Cover in Demo

- **Console** vs. **Edit window**
- ***Variables***
  - numbers: **integers** and **floats**
  - text: **strings** of characters
- **print** function

Demo Programs To Play With…

```
age = 20
year = 2015
yearBorn = year - age

print( "you are", age )
print( "you were born in", yearBorn )

name = "Alex"
college = "Smith College"
print( name, "goes to", college )

for name in  [ "Lea Jones", "Julie Fleur", "Anu Vias" ]:
    print( name )
    print( "————————————" )
```

Registering Wait-Listed Students

- If you are already registered, you can leave!
- Priority rule for wait-listed:
  - Max number per lab section: 25 students
  - 1) EGR majors (CSC111 required)
  - 2) Follow natural order in wait-list