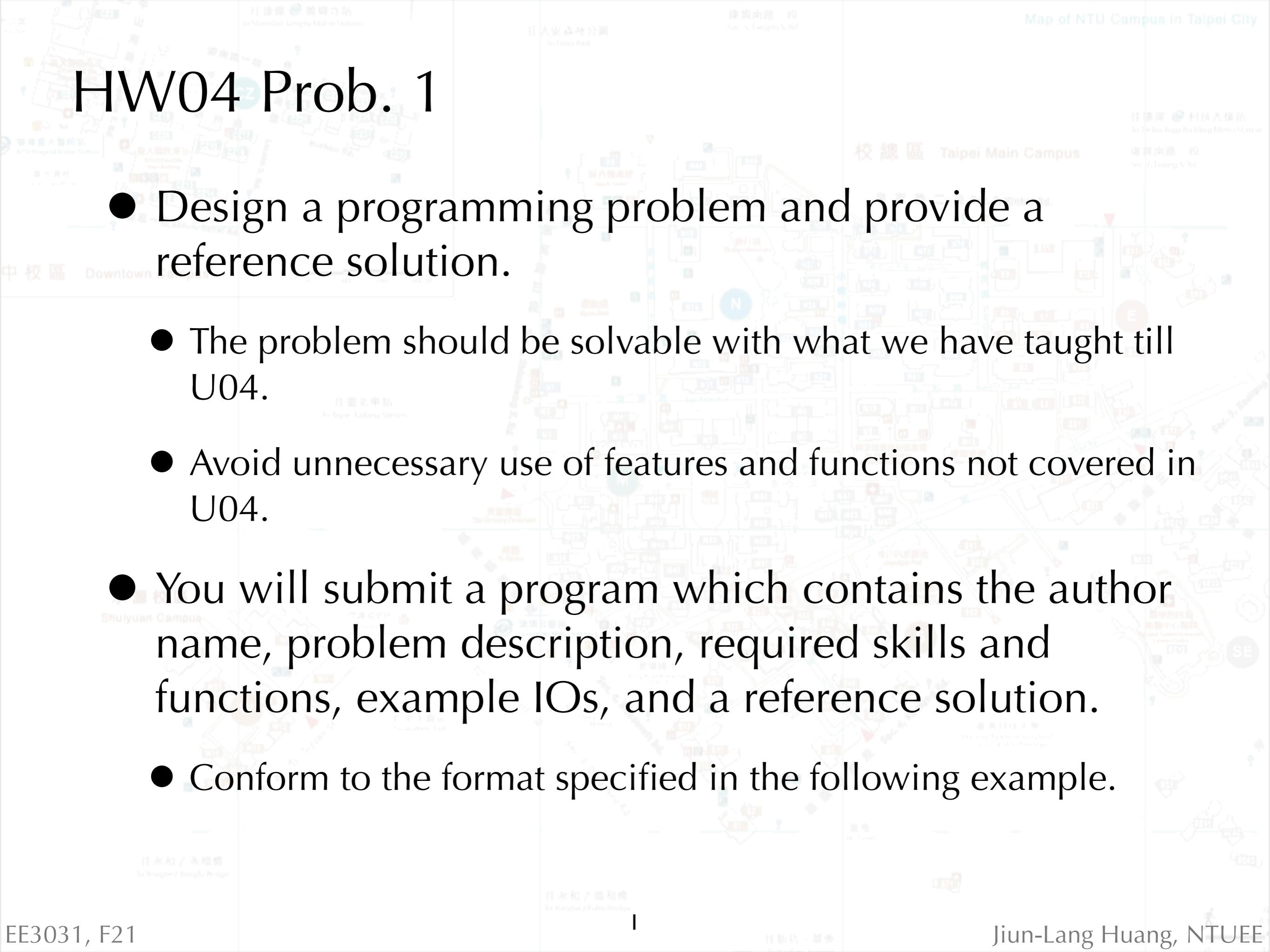


HW04 Prob. 1

- Design a programming problem and provide a reference solution.
- The problem should be solvable with what we have taught till U04.
- Avoid unnecessary use of features and functions not covered in U04.
- You will submit a program which contains the author name, problem description, required skills and functions, example IOs, and a reference solution.
- Conform to the format specified in the following example.



HW03 Prob. 1

```
# circle_area.py
# Author: Jiun-Lang Huang
```

Problem description

```
# Write a program circle_area.py that asks
# the user to enter the radius and then prints
# the circle area. The area should be printed
# with 2 decimal digits.
```

Skills and functions

```
# arithmetic expression, assignment,
# string formatting
# input(), float(), math.pi
```

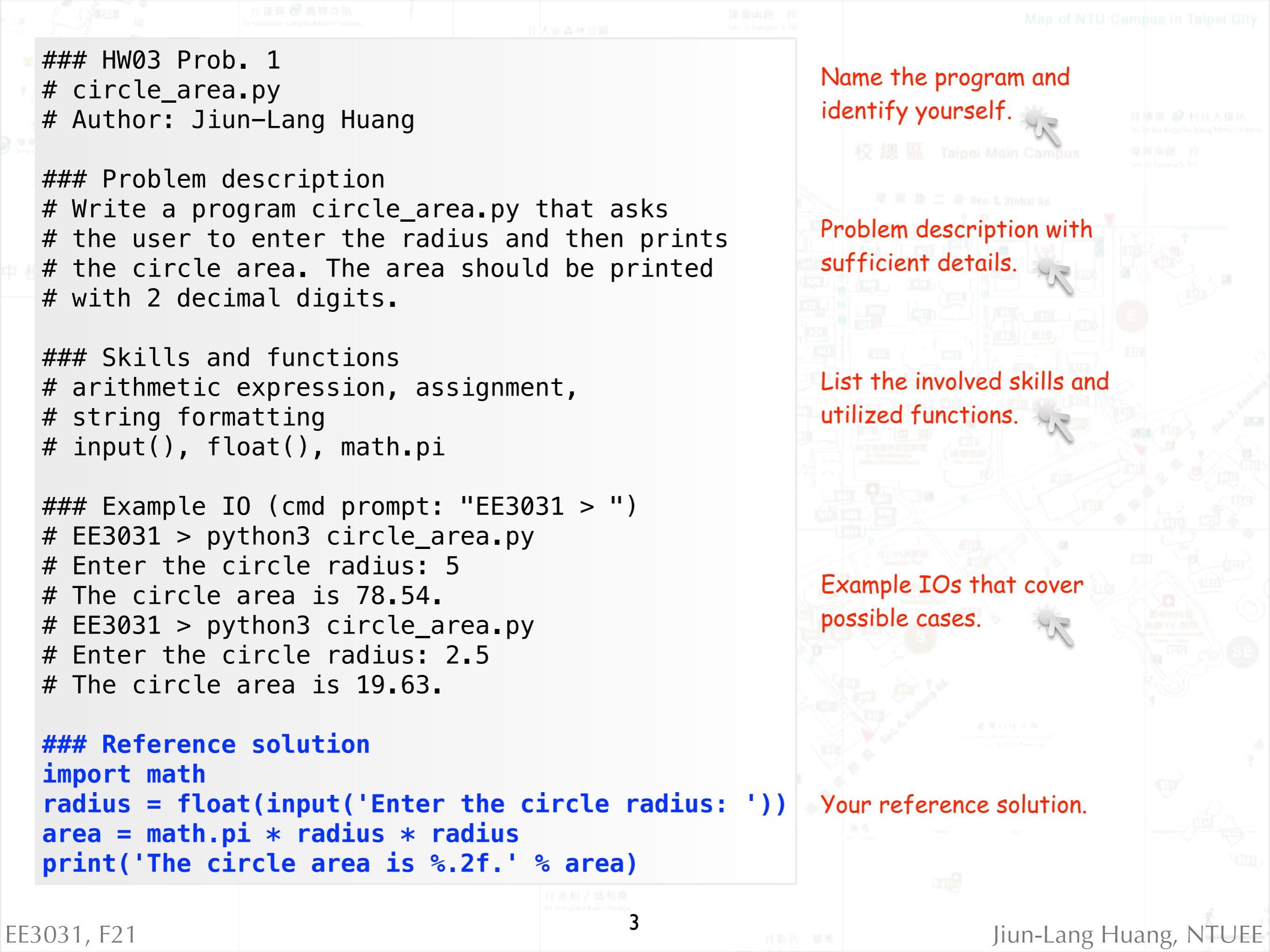
Example I/O (cmd prompt: "EE3031 > ")

```
# EE3031 > python3 circle_area.py
# Enter the circle radius: 5
# The circle area is 78.54.
# EE3031 > python3 circle_area.py
# Enter the circle radius: 2.5
# The circle area is 19.63.
```

Reference solution

```
import math
radius = float(input('Enter the circle radius: '))
area = math.pi * radius * radius
print('The circle area is %.2f.' % area)
```

Lines starting with ### are outlines. Don't modify them.



Map of NTU Campus in Taipei City

```
### HW03 Prob. 1
# circle_area.py
# Author: Jiun-Lang Huang
```

```
### Problem description
# Write a program circle_area.py that asks
# the user to enter the radius and then prints
# the circle area. The area should be printed
# with 2 decimal digits.
```

```
### Skills and functions
# arithmetic expression, assignment,
# string formatting
# input(), float(), math.pi
```

```
### Example IO (cmd prompt: "EE3031 > ")
# EE3031 > python3 circle_area.py
# Enter the circle radius: 5
# The circle area is 78.54.
# EE3031 > python3 circle_area.py
# Enter the circle radius: 2.5
# The circle area is 19.63.
```

Reference solution

```
import math
radius = float(input('Enter the circle radius: '))
area = math.pi * radius * radius
print('The circle area is %.2f.' % area)
```

Name the program and identify yourself.



Problem description with sufficient details.



List the involved skills and utilized functions.



Example IOs that cover possible cases.



Your reference solution.



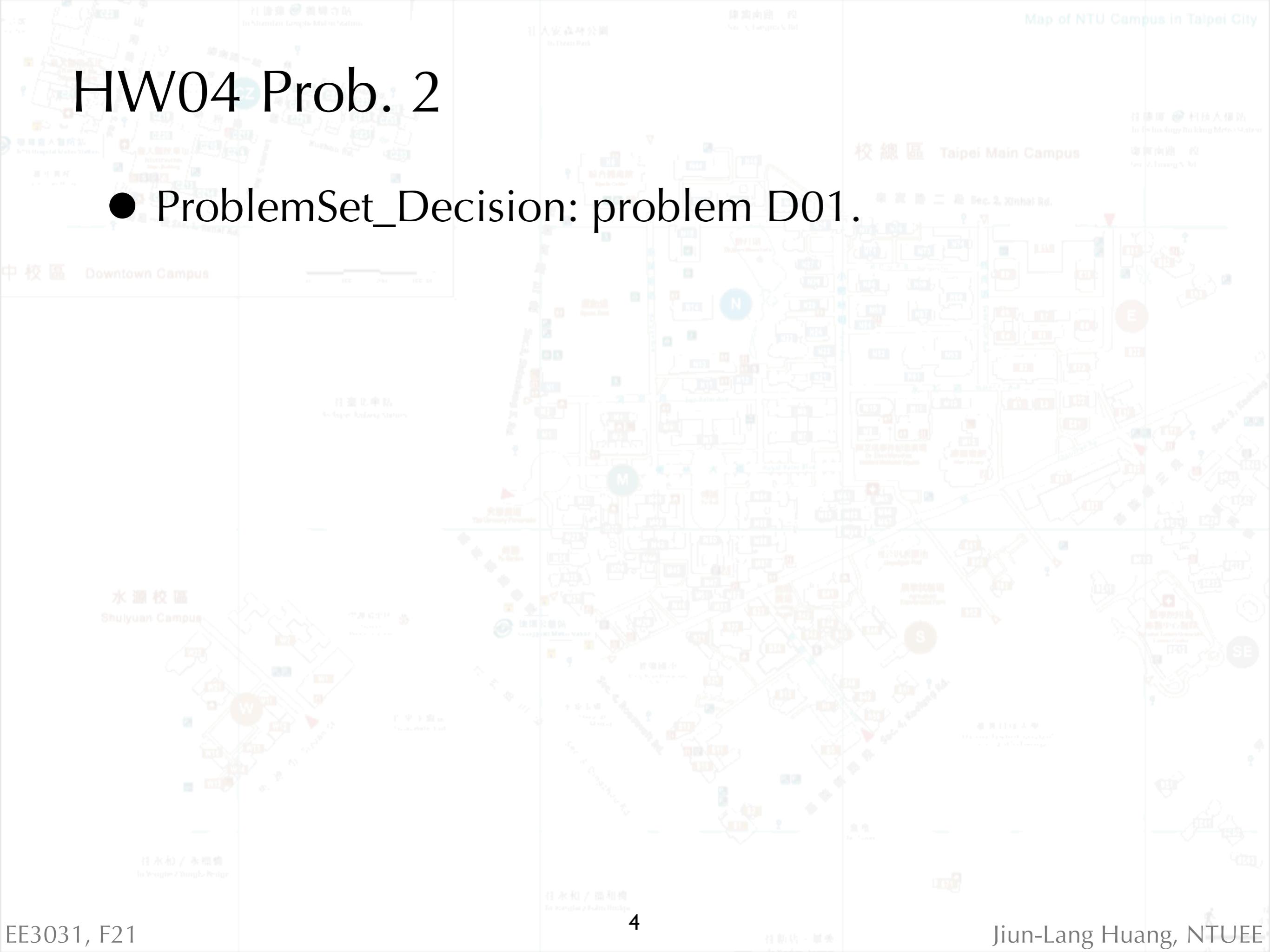
EE3031, F21

3

Jiun-Lang Huang, NTUEE

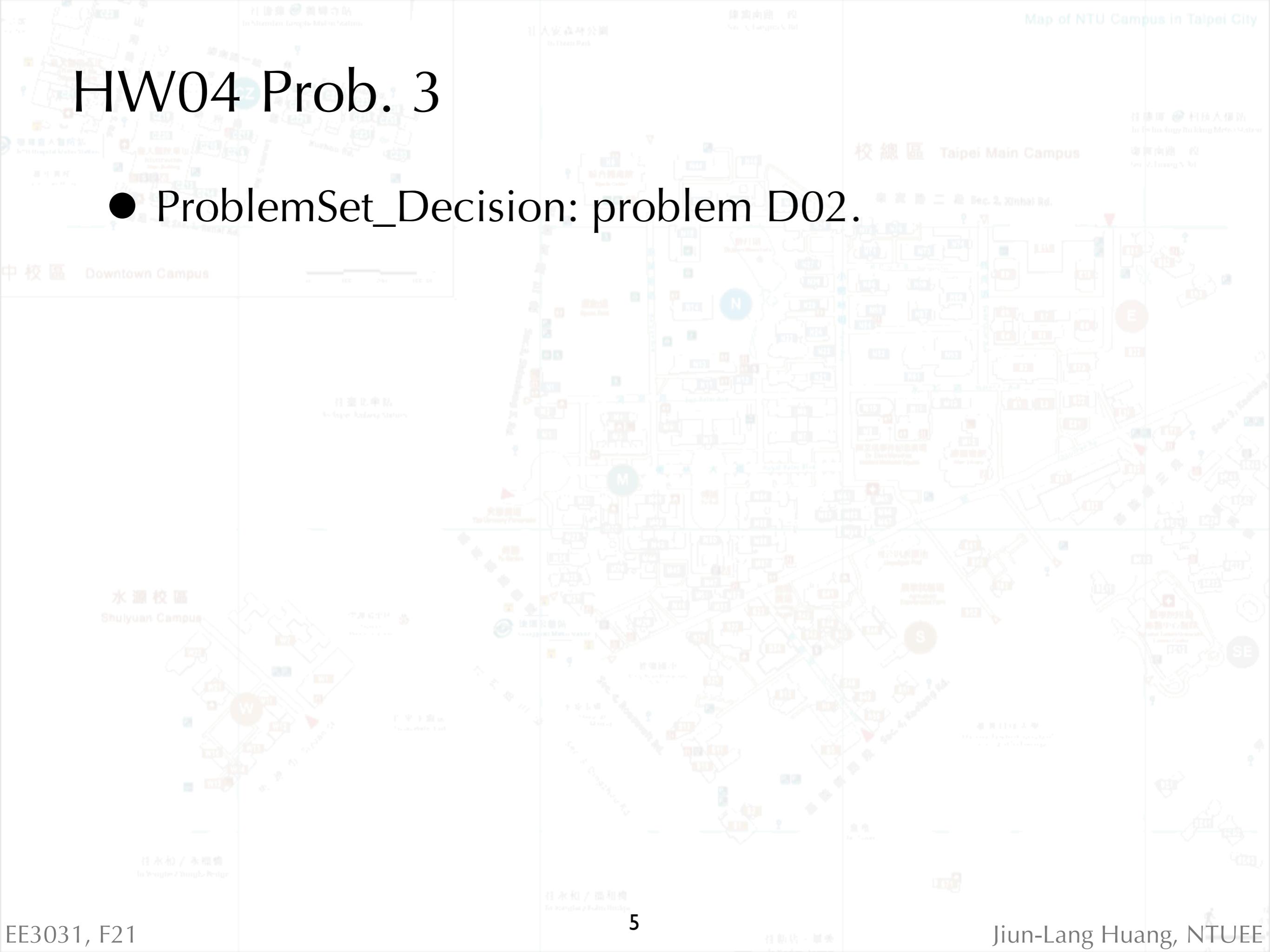
HW04 Prob. 2

- ProblemSet_Decision: problem D01.



HW04 Prob. 3

- ProblemSet_Decision: problem D02.



Submission Guidelines

- Due: October 20, 2021 via NTU Cool
- Name your program as instructed in the problems.
- Pay attention to your programming style.
- **Avoid using Python features and functions not covered in lectures yet.**

