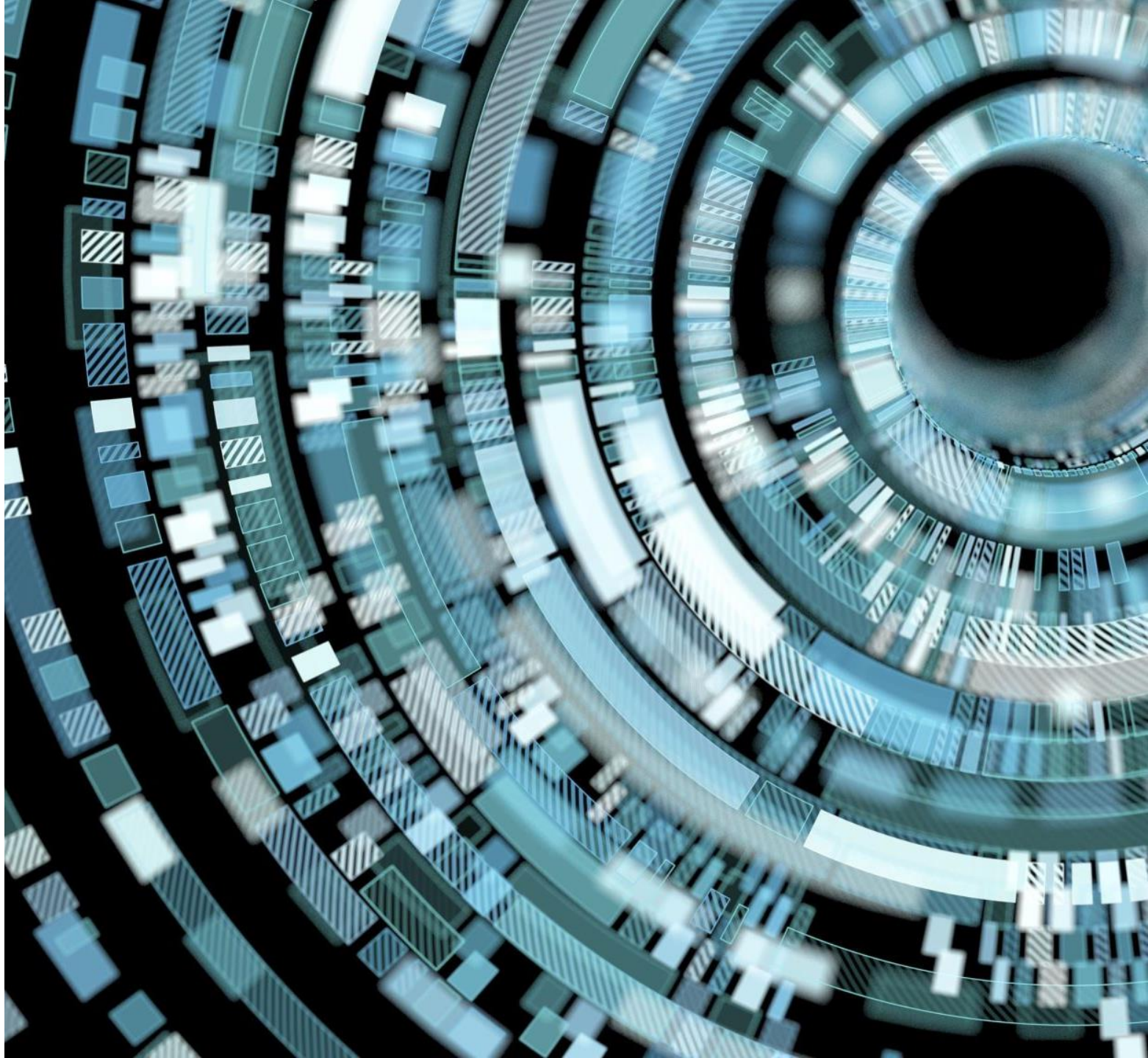
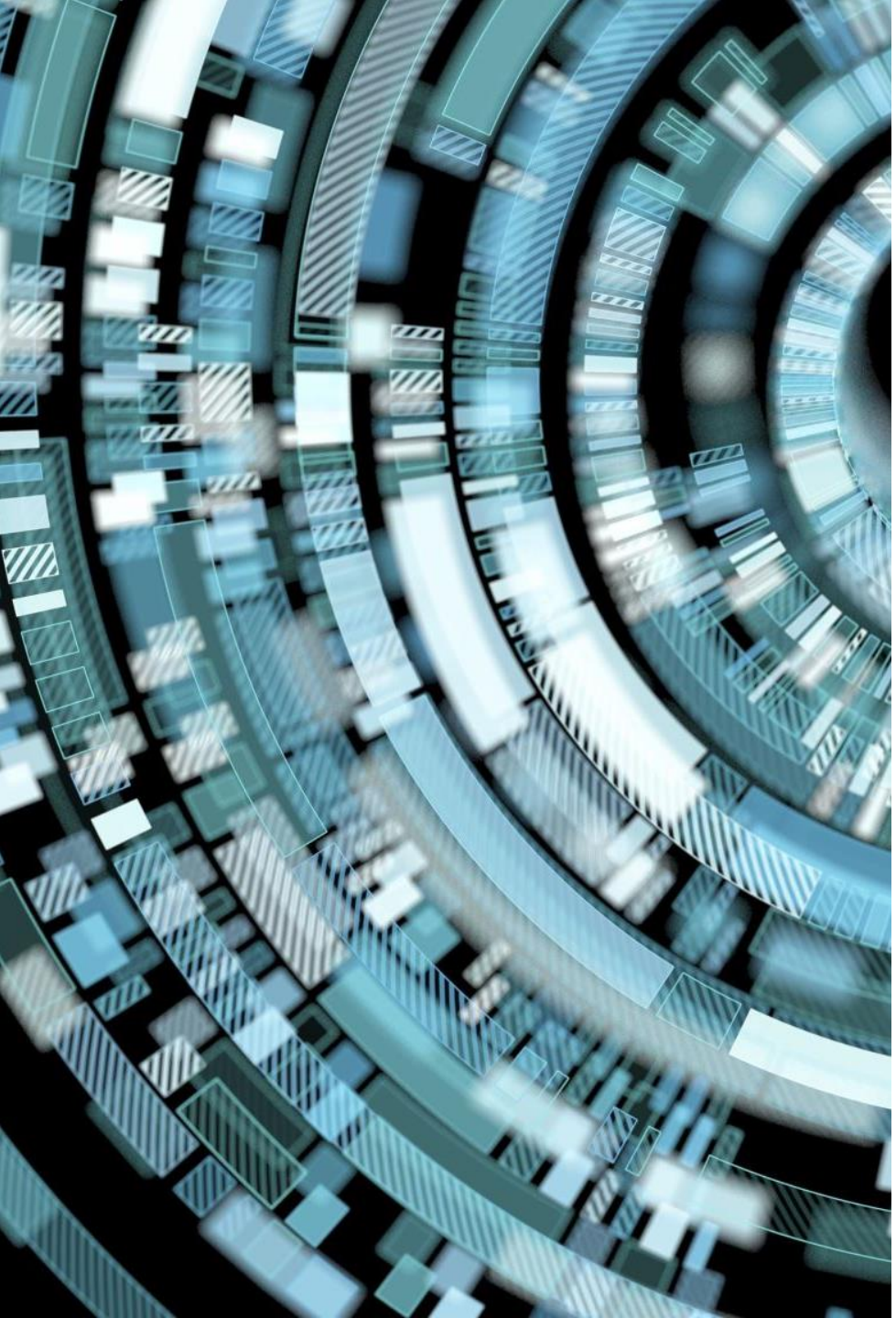
Digital Image Processing

English taught program
A1927

Thu 09:10~12:00

Instructor: Meng-Luen Wu





About the instructor

- Meng-Luen Wu
- Assistant Professor
- Joined Tamkang University since 2021.02
- Research fields
  - Artificial Intelligence
  - Image Processing
  - Computer Vision
  - Intelligent Law Systems
  - Database Web Design


What is Digital Image Processing?

What is the purpose of Image Processing?

Image Enhancement

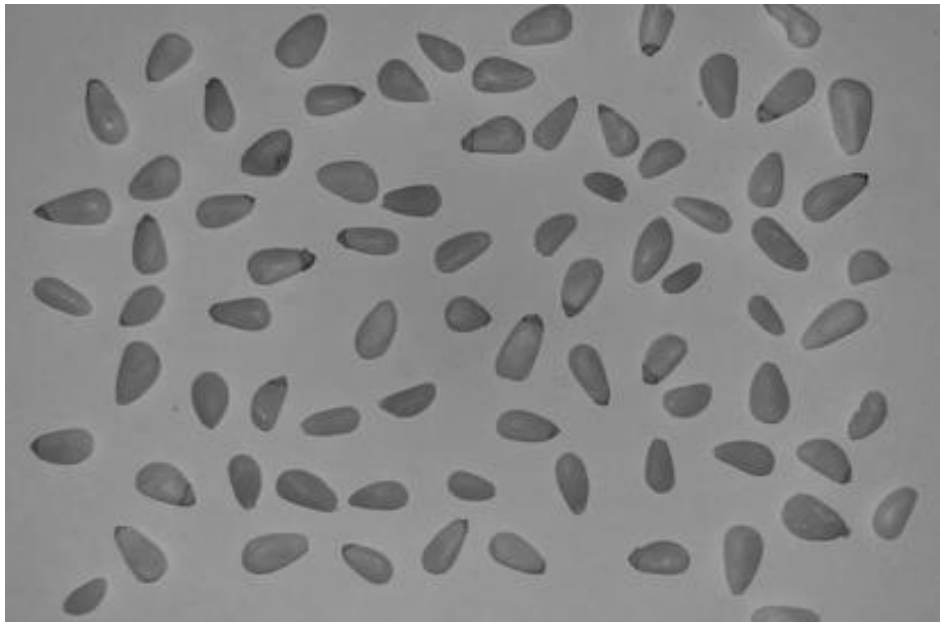
Sharpening Image

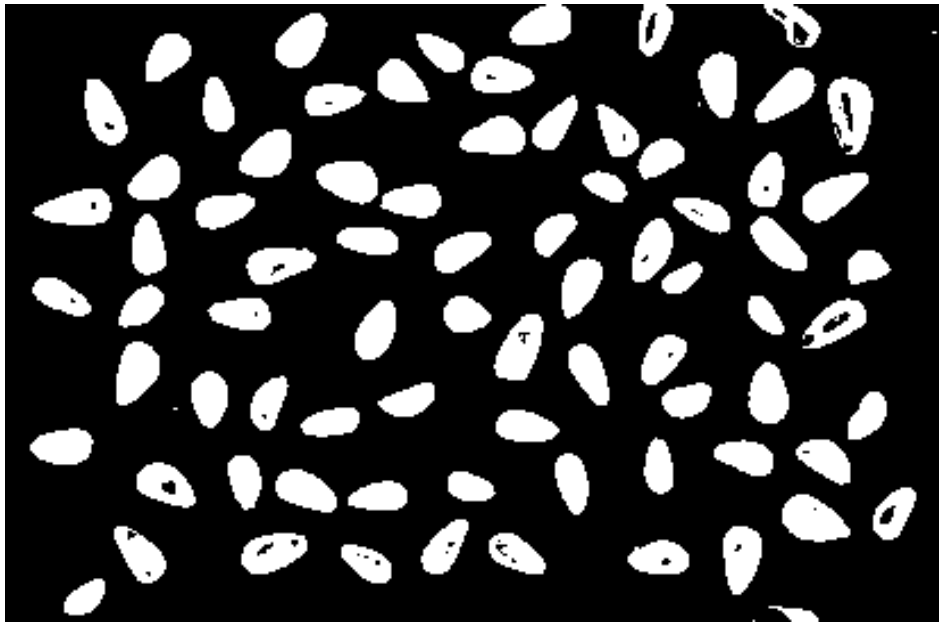
Find the edges

Denoising

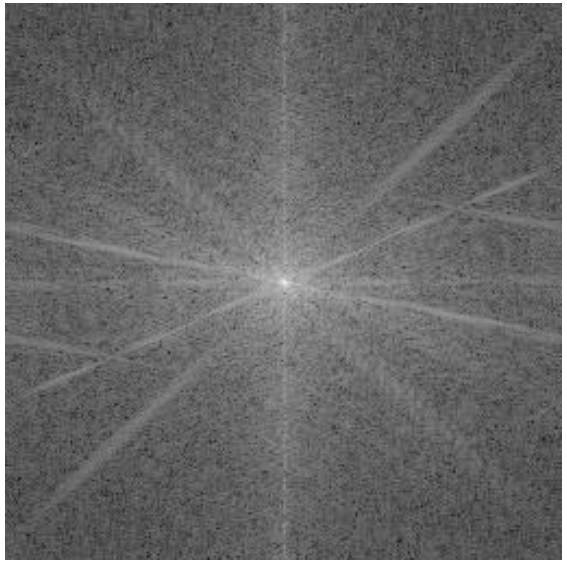
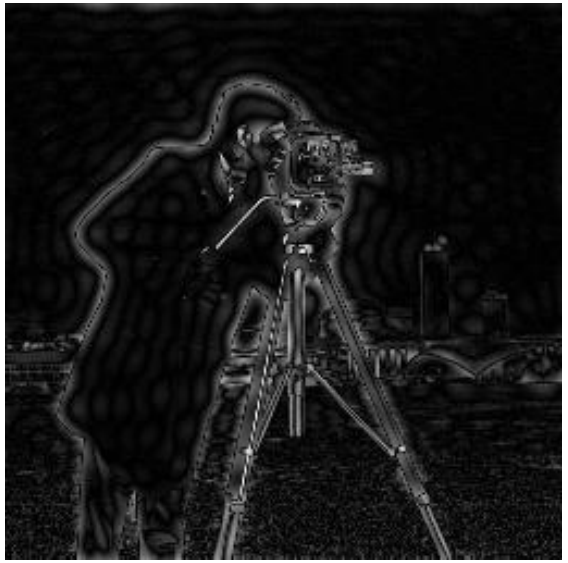
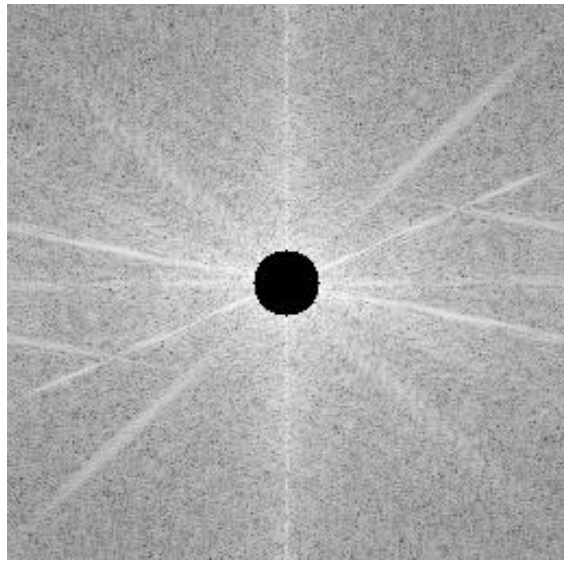
Deblurring

Count the beans





Detect the lines

Operation in Frequency Domain

Grading

- Midterm 30%
- Final Exam 30%
- Assignments & Projects 30%
- Attendance & Performance in Class 10%

English-taught class

- This is an English-taught class.
- No Chinese in class, including asking questions.
  - You can ask questions in Chinese after class.
- If you can not understand the material in English,
  you can ask about the content after class.

Exam rules

Do not copy answers from your classmates.

If the exam is announced as an “open book” test, you are free to find answers from all kinds of materials, except for the answers from your classmates.

If any two students have similar answers unreasonably. Those who copies or provides the answers will not have any grade for the exam.

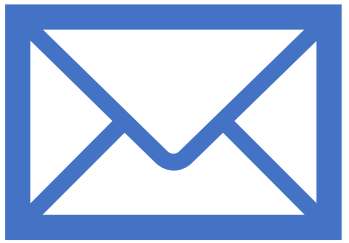
The exam coverage will be announced before midterm and final exam.

assignment rules

- Do not copy answers from your classmates.
- If any two students have similar answers unreasonably. Those who copies or provides the answers will not have any grade for the assignment.

How to hand in your exam papers during online course

For courses using iClass, hand in your exam papers in the “Homework” section.



iClass servers are busy during exam, please additionally hand in your exam papers to mlwutp@gmail.com as a backup.

ROLL CALLS

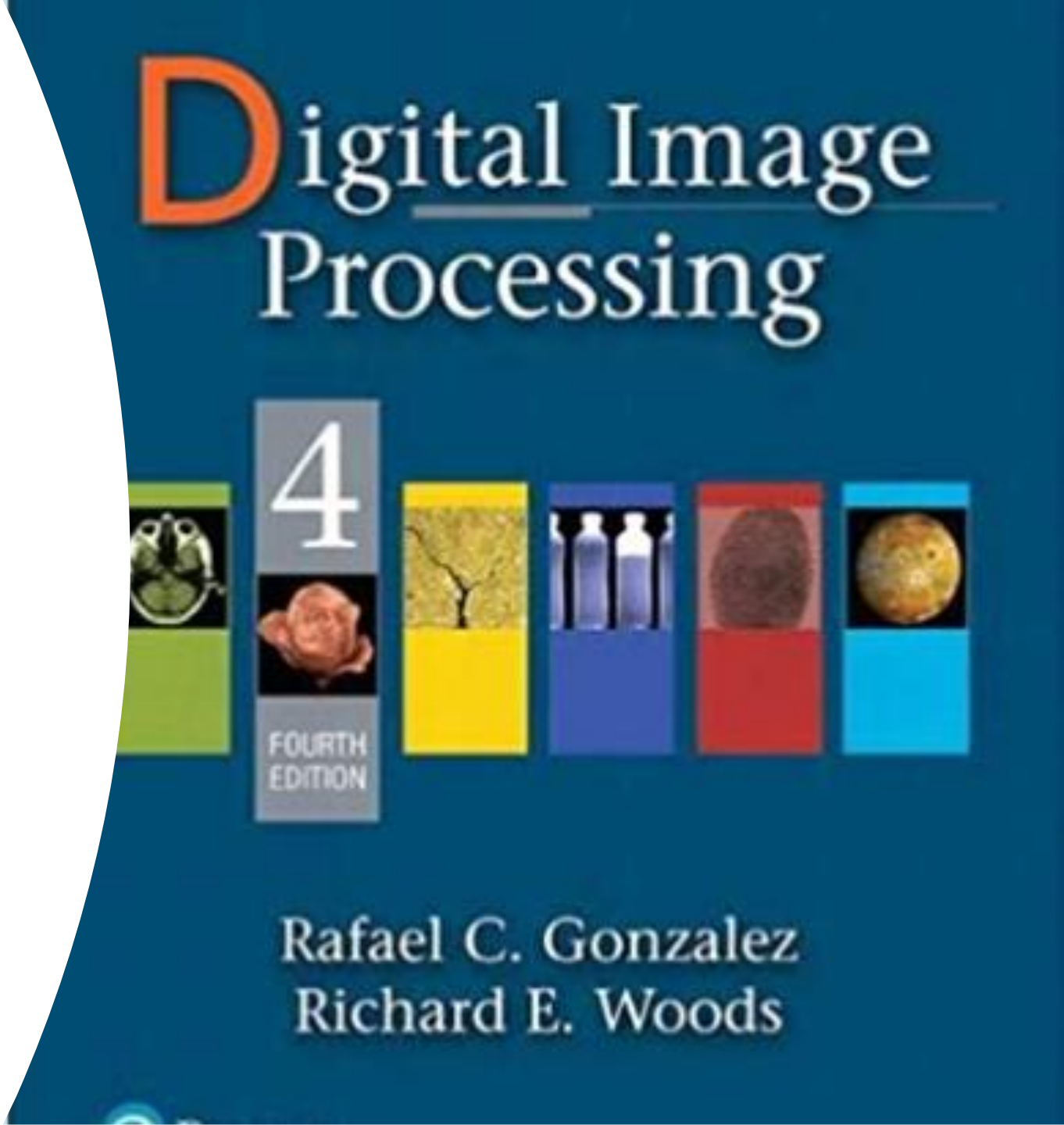
- Roll call using “numbers”
- Make up roll calls are not allowed.
- The roll call is only a reference for student performance,
  grade deduction will be conducted only for excessive absence.

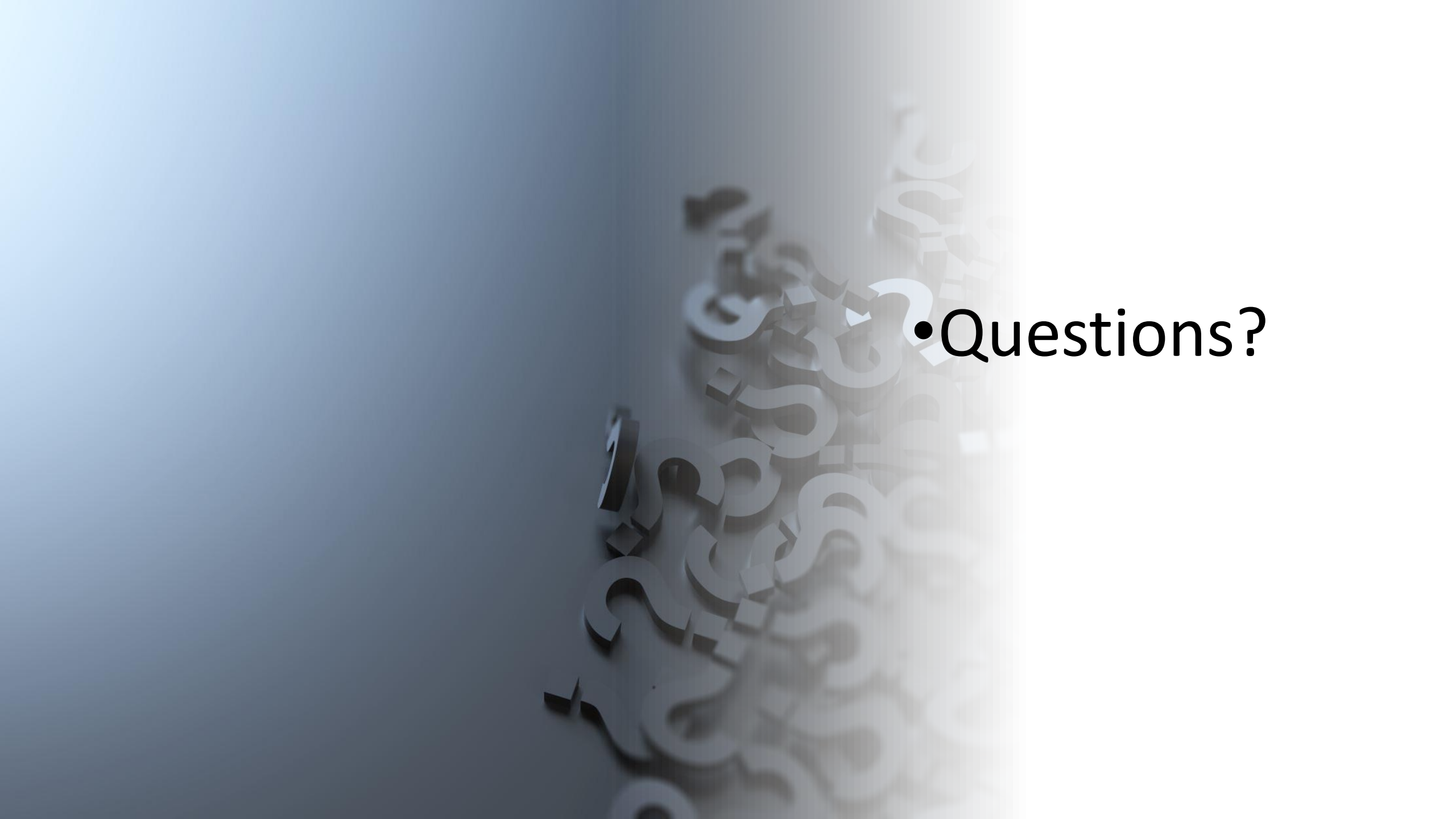
Textbook

- Mcandrew, Alasdair. “Digital Image Processing with MATLAB.” Cengage learning
- Helps readers easily understand the elements of digital image processing
- Includes sample codes for Matlab and Python

Textbook

- Gonzalez, R. C., and R. E. Woods. “Digital Image Processing Prentice.”
- The “bible” for digital image processing
- Includes more detail equations and formulas for digital image processing.





- Questions?