

ECE/BME 641 - Model-Based Image and Signal Processing
Fall 2025

It really should have the name:

- Foundations of Computational Imaging

Instructor: Charles A. Bouman

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Course Hours: MWF 1:30 to 1:20

Classroom: Schleman Hall 302

honorary Class TA: Jingsong Lin (voluntary), email: lin1311@purdue.edu

Office Hours: Time: Monday and Wednesday 3:40-5:00pm; Location: MSEE 357

Course Web Page: <https://engineering.purdue.edu/~bouman/ee641/>

Lab Web Page: <https://engineering.purdue.edu/~bouman/grad-labs/>

Primary Reference:

1. Class notes: C. A. Bouman, *Foundations of Computational Imaging*, ISBN: 978-1-611977-12-7.

Course Description:

This course will cover topics in Computational Imaging and Inverse Problems at the level of current research. Reference material will be primarily in the form of the class notes and journal publications. The course will include computer homework assignments, computer projects, one midterm and a final. Final grades will use the following weighting.

Course Grading:

Homework and computer projects	30%
Midterm #1	30%
Final exam (may be a project)	40%

Lab/Homework submission:

Submit all assignments and labs in pdf format via the Brightspace web page. Clearly label the submission (i.e., “homework 1” or “Lab 2”). The submitted pdf document should include all requested code.