In this document, we highlight important knowledge in Chapters 00—05. This will be highly relevant to the final exam.

**Chapter 01 Mathematical Backgrounds**
Pages 02, 04, 05, 09, 10, 12, 16, 20, 22, 25, 27

**Chapter 02 Motion and Scene Representation (Part 1 Basic Expression)**
Pages 08, 12, 15, 16, 17, 18, 20, 24, 27, 28, 31, 43, 48

**Chapter 02 Motion and Scene Representation (Part 2 Lie Group and Lie Algebra)**
Pages 04, 05, 09, 10, 11, 12
Remark: Additional important knowledge will be introduced in the future. Students are required to understand the application of Lie Group and Lie Algebra to bundle adjustment.

**Chapter 03 Image Formation (Part 1 Perspective Projection)**
Pages 07, 09, 10, 15, 17, 18, 19, 20, 21, 22, 26, 27, 31, 33, 34, 36, 44, 50
Remark: Detailed information about Pages 09 and 10 will be introduced in the future.

**Chapter 03 Image Formation (Part 2 Distortion and Supplementary Knowledge)**
Pages 02, 04, 05, 14, 16, 17, 25

**Chapter 04 Camera Calibration**
Pages 02, 03, 07, 08, 14, 15, 16, 18, 19, 20, 21, 27, 28, 29, 30, 31, 32, 33, 34, 35, 39, 40, 41
Remark 1: For page 18, students are not required to know details about QR decomposition. Exam will not involve mathematical computation related to QR decomposition.
Remark 2: For pages 33, 34, and 35, students are required to understand the main idea of camera parameter recovery. Exam will not involve specific derivations.

**Chapter 05 Correspondence Estimation (Part 1 Small Motion)**
Pages 04, 05, 06, 07, 12, 16, 17, 18, 19, 20, 22, 23
Remark 1: For pages 16, 17, and 18, students are required to know how to derive M-matrix.
Remark 2: For pages 19 and 20, exam will not involve the computation of eigenvalues and eigenvectors.

**Chapter 05 Correspondence Estimation (Part 2 Large Motion)**
Pages 05, 08, 09, 10, 12, 14, 15, 16, 17, 20
Remark: For pages 09 and 10, students are required to know how to derive M-matrix.

**Chapter 05 Correspondence Estimation (Part 3 Clarification and SIFT)**
Page 03, 07, 12, 13, 14, 15, 16, 17, 18, 20, 24, 26, 28, 29, 31, 32, 33, 35, 38, 42, 43