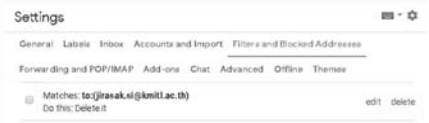
Elementary Differential Equations and Linear Algebra

Jirasak Sittigorn

Department of Computer Engineering
Faculty of Engineering
King Mongkut's Institute of Technology Ladkrabang

Instructors

- Jirasak Sittigorn
  - Room : 508, 708, 908, 601 (ECC)
  - Email : ksjirasa@gmail.com
- เว็บไซต์รายวิชา (Pass : ComEngr)
  - http://www.ce.kmitl.ac.th/management.php?action=sj_edit&SUBJECT_ID=44
- Online course
  - https://www.edx.org/course/linear-algebra-foundations-frontiers-utaustinx-ut-5-05x-0



Grading Policy

- แบบฝึกหัด 5%
- สอบย่อย 5%
- งาน 10%
- สอบกลางภาค 40%
- สอบปลายภาค 40%

Course Syllabus

- Vectors in Linear Algebra
- Linear Transformations and Matrices
- Matrix-Vector Operations
- From Matrix-Vector Multiplication to Matrix-Matrix Multiplication
- Matrix-Matrix Multiplication
- Gaussian Elimination

Course Syllabus

- More Gaussian Elimination and Matrix Inversion
- More on Matrix Inversion
- Vector Spaces
- Vector Spaces, Orthogonality, and Linear Least Squares
- Orthogonal Projection, Low Rank Approximation, and Orthogonal Bases
- Eigenvalues, Eigenvectors, and Diagonalization

Reference

- Linear Algebra: Foundations to Frontiers (Robert van de Geijn and Maggie Myers)
  - https://courses.edx.org/courses/course-v1:UTAustinX+UT.5.05x+2T2017/course/
- College Level Advanced Linear Algebra Theory & Programming
  - https://www.udemy.com/college-level-linear-algebra-theory-and-practice/
- LAFF-On Programming for Correctness
  - https://courses.edx.org/courses/course-v1:UTAustinX+UT.PQ.14.01x+1T2017/course/