(——; 3-0-1) **Introduction to Linear Algebra** APSC-174*

This course is taken by all first year Applied Science students. It is based on the problem of finding the motions of two vibrating masses connected by springs to each other and to stationary points. The central ideas from linear algebra, vector spaces, linear maps, matrices, linear equations, dimension, coordinates, eigenvalues and eigenvectors, and diagonalization are introduced and applied to our main problem, so that by term's end, a complete solution to our problem will have been found. (Some familiarity with calculus will be assumed).

**Textbook:** *Linear Algebra with Applications*, 3rd Edition
by O. Bretscher (Prentice Hall)

**Instructors:** **C. Koestler**, **G. Woodruff**, R. Beheshti-Zavareh, S. Cooper

| **Evaluation:** | | |
|---|---|---|
| | Mid-term I | 10% |
| | Mid-term II | 15% |
| | Homework | 10% |
| | Project | 5% |
| | Final examination | 60% |