CIS*2520: Data Structures

Skills and knowledge students should have prior to beginning the course:

- CIS*2500: Intermediate Programming.
- CIS*1910 or ENGG1500 Proof techniques, Set theory, and functions.
- Elementary Algebra, including logarithmic functions, exponents, etc.

This course is a study of basic data structures, such as

- linked lists,
- stacks,
- queues,
- trees, and
- tables.

Course Topics:

- 1. Abstract data types,
- 2. Sequential and linked representations, and
- 3. An introduction to algorithm analysis;
- 4. Various traversal, search,
- 5. Insertion,
- 6. Removal, and
- 7. Sorting algorithms.

Course Format:

• Lecture format: Lectures in class, with reinforcement in formal pre-prepared labs.

Tentative Method of evaluation:

| Number of Assignments: | 6 |
|------------------------|-----|
| Number of Graded Labs: | 2 |
| Formal Midterms: | 2 |
| Final Exam? | Yes |