## Carthage Mathematics Department Course Summary for MTH 3030 Discrete Structures II

- 1. Credits: 4 cr.
- 2. Semesters Offered: Fall
- 3. Text(s): Instructor Notes
- 4. Topics Covered:
  - a. Combinatorics
  - b. Recursion
  - c. Algorithms
  - d. Probability
- 5. Skills Enhanced:
  - a. Quantitative reasoning
  - b. Critical thinking
  - c. Problem solving
  - d. Writing mathematics
- 6. Sample Syllabus:
  - a. Available from department chair
- 7. Miscellanea
  - a. None
- 8. Course Goals: By the end of the course, students should be able to do the following, all of which will be assessed by written projects and papers.
  - a. Solve combinatorial problems
  - b. Reason probabilistically and algorithmically
  - c. Employ recursion to solve problems involving combinatorics and probability Item