CMPS 200 Discrete Structures

3.0 hours credit.

Instructor: Shizhong Yang, Room E113 of Thurman Hall, Phone: (225) 771-3113.
   Office hours: Tue/Thr: 2:00 pm - 5:00 pm
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Textbooks:

1. (Recommended) Discrete Mathematics and Its Applications 7th Edition

Specifics:

A. Catalog Description: This course is designed to give students mathematical foundations of Computer Science, including fundamentals of logic and proof, set theory, Boolean algebra, algorithm, tree, graph theory, complexity, and finite state machines. Prerequisite: Consent of Instructor.

B. Prerequisites: College algebra.

Goals & Topics:

As a computer science basic course, Discrete Structures covers major mathematical concepts that form the basis of computer science. Students need a complete treatment of logic and proof, sets, and functions, as well as algorithms and mathematical reasoning. From this basis, counting techniques and discrete structures can be studied effectively. Key topics involving relations, algorithm, graphs, trees, and complexity are covered in this course. The content of chapter 1 ~ chapter 11 in the recommended textbook will be covered.

Student Outcomes

   a. An ability to apply knowledge of computing and mathematics appropriate to the discipline (ABET Outcome-a)
   b. An ability to analyze a problem, and identify and define the computing requirements appropriate to its solution (ABET Outcome-b)
   c. Recognition of the need for and an ability to engage in continuing professional development (ABET Outcome-h).
   d. An ability to use current techniques, skills, and tools necessary for computing practice (ABET Outcome-i)
**Course Work Evaluation:**

<table>
<thead>
<tr>
<th>Metric</th>
<th>Approx. weight in grade</th>
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<tbody>
<tr>
<td>Assignments/projects</td>
<td>20%</td>
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<tr>
<td>Attendance</td>
<td>10%</td>
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<tr>
<td>Midterm</td>
<td>35%</td>
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<tr>
<td>Final</td>
<td>35%</td>
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**Grading:**

- 90%-100% A
- 80%-89% B
- 70%-79% C
- 60%-69% D
- 59% and less F