Discrete Structures  
CSCI 220, Summer II 2016, Queens College

Instructor: Liming Luo  
Class: Monday, Tuesday, Wednesday, Thursday 2:00-3:34 pm, PH 156  
Office Hours: by appointment, SB A201  
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This course serves as an introduction to Discrete Mathematics. Topics covered will include induction, asymptotic growth of functions, recursion and counting, relations, and graphs and trees.


**Final grades** in this course will be computed as follows: midterm 1 (30%), midterm 2 (30%), and final (40%).

The scale for letter grades is as follows:

<table>
<thead>
<tr>
<th>Grade</th>
<th>Score Range</th>
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<tbody>
<tr>
<td>A+</td>
<td>97 – 100</td>
</tr>
<tr>
<td>A</td>
<td>93 – 96</td>
</tr>
<tr>
<td>A-</td>
<td>90 – 92</td>
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<tr>
<td>B+</td>
<td>87 – 89</td>
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<tr>
<td>B</td>
<td>83 – 86</td>
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<tr>
<td>B-</td>
<td>80 – 82</td>
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<tr>
<td>C+</td>
<td>77 – 79</td>
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<tr>
<td>C</td>
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<td>C-</td>
<td>70 – 72</td>
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<tr>
<td>D+</td>
<td>67 – 69</td>
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<tr>
<td>D</td>
<td>60 – 66</td>
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<tr>
<td>F</td>
<td>0 – 59</td>
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</tbody>
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**Problem Sets** will be posted over the course of the semester but **will not be graded**. They are intended as exercises to practice for the exams. Solutions will also be posted.

**Schedule:** We will cover the following sections in the text, though not necessarily in their entirety, following approximately this schedule.

1) propositional functions, predicates, sets, relations (1.1 – 1.5, 2.1 – 2.3, 12.1 – 12.2)  
2) induction and recursion (2.4, 5.1 – 5.3)  
3) asymptotic order of functions, recursive algorithms, recurrences (3.1 – 3.3, 5.4, 8.3)  
4) counting, inclusion-exclusion, linear recurrence (6.1 – 6.5, 8.1 – 8.6)  
5) relations and graphs (9.1 – 9.6, 10.1 – 10.3)  
6) graphs and trees (10.4 – 10.5, 11.1 – 11.3)

**midterm 1:** 7/18/2016  
**midterm 2:** 8/1/2016  
**final:** 8/15/2016