
IT 301 - Introduction to Algorithms (3-0-2-4)

**Instructor:** Ashok Thakorbhai Amin

**Class Room:** LT1; **Class Times:** Mon, Thu- 8:30am; Tue, 9:30am

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**Ofc Hours:** Mon, Tue, Thu: 5-6pm; Fri: 1-3pm, or by appointent

**Course Objectives.** The students will learn to a) design algorithms, 2) analyze them for correctness and complexity, and 3) implement them using a high level programming language.

**Course Contents.** Problems and functions; Unsolvable, Intractable, and Tractable problems; Complexity measures and asymptotic notations; Search, Sort and Selection Algorithms; Graph algorithms; Greedy Algorithms; Dynamic Programming Algorithms; Pattern Matching Algorithms; NP-Complete and NP-Hard problems.

**Textbook:**

T. H. Cormen, C. E. Leiserson, R. L. Rivest, and C. Stein


**References**


**Grading and Evaluation.**

Lab 20%

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<tr>
<th>Exam Type</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>Semester Exam I</td>
<td>20%</td>
<td>1-3 September, 2011</td>
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<td>Semester Exam II</td>
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<td>End Semester Exam</td>
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**No Classes.** 2011, **Mondays:** Aug 15, 22 and Nov 07; **Thursdays:** Oct 06, 27 and Nov 10.