COSC413 Advanced Topics in Algorithms
Course Outline

Course supervisor: Professor T. Takaoka
Department of Computer Science
Email: tad, phone 7773, room 302
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Course aims

We learn cryptography and complexity theory in this course. This course will give a clear explanation of NP-completeness theory. Then algorithms on number theory needed for the RSA cryptosystem will be given in detail. The advanced topic of random algorithms will also be discussed.

Lectures and Lecturer

Lectures are on /monday 11 a.m. - 1 p.m. in room Math/Cosc 235. for the whole term. Lecturer is the supervisor given above.

Assessment

<table>
<thead>
<tr>
<th>Part</th>
<th>Type</th>
<th>Worth</th>
<th>Due date</th>
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<tbody>
<tr>
<td>Assignment 1</td>
<td>Materials from cryptography</td>
<td>30%</td>
<td>Single Precision August 20</td>
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<tr>
<td>Assignment 2</td>
<td>Materials from complexity theory</td>
<td>30%</td>
<td>Multiple Precision September 10</td>
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<tr>
<td>Exam</td>
<td></td>
<td>40%</td>
<td>October 1</td>
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</tbody>
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The test is an open book one. Important documents are posted to the COSC413 in Takaoka’s home page. Please read all such notices.

Recommended Reading


Other important documents

You should be in possession of two important Computer Science documents that are handed out together (versions of these documents are also available through our departmental web page at http://www.cosc.canterbury.ac.nz. One is the Computer Science “Standard Academic Rules, Regulations and Guidelines”, and includes details of how to apply for aegrotats and other forms of special consideration. The other document contains our code of practice for computer use, and emergency procedures.

You should read both documents carefully, as you will be asked to sign a form acknowledging that you agree to abide by the rules specified in the two documents.