Mathematical Methods for Robotics, Vision, and Graphics
CS 205A, Fall 2013

Course Description
Continuous mathematics background necessary for research in robotics, vision, and graphics. Possible topics: linear algebra; the conjugate gradient method; ordinary and partial differential equations; vector and tensor calculus. Prerequisites: 106B or X; MATH 51; or equivalents.

1 Basic Information

1.1 Staff

\begin{itemize}
  \item Instructor: Justin Solomon
  \item Office: Clark S297
  \item Telephone: 650-725-6521
  \item Email: justin.solomon@stanford.edu
  \item Office hours: Wednesdays, 10am-12pm (Clark S297)
  \item Course assistant: Joongyeub Yeo
    \item Email: yeo@stanford.edu
    \item Office hours: Tuesdays, 1pm-3pm (Gates B26A)
  \item Course assistant: Yang Zhao
    \item Email: yzhao3@stanford.edu
    \item Office hours: Fridays, 2pm-4pm (Gates B26A)
\end{itemize}

1.2 Class

\begin{itemize}
  \item Time: MW, 4:15pm to 5:30pm
  \item Place: Thornton 102
\end{itemize}

1.3 Section

\begin{itemize}
  \item Time: F, 4:15pm to 5:05pm
  \item Place: Hewlett 102
\end{itemize}

1.4 Web

The course web page, which will contain lecture slides, homeworks, announcements, and other important materials, can be found at:

\url{http://cs205a.stanford.edu}

We will be using Piazza to host a course bulletin board and for some online announcements; be sure to register for the CS 148 page. All students are expected to register at:

\url{http://piazza.com/stanford/fall2013/cs205a}
2 Course Policies

2.1 Grading

Your grade will be evaluated using the following distribution:

<table>
<thead>
<tr>
<th>Item</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Homework (approx. weekly)</td>
<td>60%</td>
</tr>
<tr>
<td>Midterm</td>
<td>15%</td>
</tr>
<tr>
<td>Final</td>
<td>25%</td>
</tr>
<tr>
<td>Participation</td>
<td>±5%</td>
</tr>
</tbody>
</table>

2.2 Late Assignments

Assignments are due at 11:59pm on the listed due date. You will be permitted a total of five late days over the course of the quarter measured in periods of 24 hours; beyond this total, late assignments will lose 20% credit per day (additively).

2.3 Textbook

The textbook for CS 205A is *Scientific Computing*, by Heath. A set of course notes specific to CS 205A is under construction by the instructor. While he is making every effort to complete the notes as the quarter proceeds, students in CS 205A are still responsible for having the official text on hand!