

## COMP599 Assignment 2

Due 9:00 AM February 26<sup>th</sup> 2014

Show that for every  $\varepsilon$  there is a  $\Delta(\varepsilon)$  such that if  $G$  is a regular graph of degree  $\Delta > \Delta(\varepsilon)$  then there is a proper colouring of its edges using at most  $(1+\varepsilon)\Delta$  colours so that for every vertex  $v$  and colour  $j$  there are at least  $\Delta/10$  neighbours of  $v$  incident to an edge of colour  $j$ .

Work together, indicate who wrote what part of the answer, and submit to [breed@cs.mcgill.ca](mailto:breed@cs.mcgill.ca) as a .pdf file.