

## CSE 5311 Lab Assignment 2

Due August 6

### Goals:

1. Understanding of fundamental string preprocessing.
2. Understanding of KMP preprocessing.

### Requirements:

1. Write (and test) a program to determine the shortest factor of a string using the fundamental string preprocessing algorithm.
2. Write (and test) a program to determine the shortest factor of a string using the KMP preprocessing algorithm.
3. Submit printed (no email) listings of your two programs and the results of executing your two programs on five significant input strings.

### Getting Started:

1. <http://reptar.uta.edu/NOTES5311/cse5311.html> provides web access to C code for the two methods.
2. A factor  $w$  of a string  $x$  is a string that is repeated  $k$  times to give string  $x$ . For example, if  $x = 01010101$  then  $w = 01$  is the shortest factor of  $x$  since  $(01)^4 = 01010101$ .