CMPSC 250
Analysis of Algorithms

Spring 2016
MWF 1:30–2:20
Lab F 2:30-4:20

Prerequisites: CMPSC 112 and MATH 205

- **Understand how to analyze algorithm performance!**
- **Discuss common algorithms for sorting, searching, strings, and graphs!**
- **Learn classes of algorithms: greedy algorithms, dynamic programming, and pattern matching!**
- **Design your own algorithm to solve a real-world challenge!**

KMP-Matcher(T, P)
1 n = T.length
2 m = P.length
3 π
4 q = 0
5 for i = 1 to n
6   // next character does not match
7   q = π[q]
8
9   q = q + 1   // next character matches
10   if q == m   // is all of P matched?
11   print "Pattern occurs with shift" i − m
12   q = π[q]   // look for the next match