SYLLABUS

I. Title: CSC422 Theory of Computation

II. Time and Place: Spring Semester 2015,
       TR 12:30-1:20 p.m. (RS 14);
       Final exam, Tuesday, May 5th, from 1:30 to 4 p.m.

III. Credit: Two units

IV. Instructor: Dr. McKinstry, Professor of Computer Science

V. Office Hours: Rohr Science 216, (619) 849-2269; email: jeffmckinstry@pointloma.edu
  Monday: 8:30-9:20 a.m., 11:00-11:50, and 2:45-3:50 p.m.
  Wednesday: 8:30-9:20 a.m., 11:00-11:50, and 2:45-3:50 p.m.
  Friday: 8:30-9:20 a.m., 11:00-11:50, and 2:45-3:50 p.m.

VI. Text: Sipser, M. *Introduction to the theory of computation*. 2nd Edition. PWS Publishing Company, Boston, 2006.

VII. Objectives of the course: An introduction to the theory of computation. Topics include finite automata and regular expressions, context-free grammars and push-down automata, Turing machines, decidability and reducibility.

VIII. Learning outcomes:
  Students will understand the theory of algorithms and computation.
  Students will understand the interaction between hardware and software.

IX. Course Organization: The Course Schedule provides an outline with dates for some of the important activities of the course. Class time will be used for lecture, discussion and group work, labs, exams.

X. Student Evaluation:

Homework/classwork	25%
Exams (2 midterms+final, 25% each)	75%
Total	100%

Grades will be determined as follows:

93-100%	A
90-92%	A-
87-89%	B+
83-86%	B
80-82%	B-
77-79%	C+
73-76%	C
70-72%	C-
67-69%	D+
63-66%	D
60-62%	D-
0-59%	F

XI.   Course Schedule (subject to change).
        Week of: Topic
        Jan. 12: Regular languages (chapter 1)
        Jan. 19: Regular languages (chapter 1)
        Jan. 26: Regular languages (chapter 1)
        Feb. 2: Regular languages (chapter 1)
        Feb. 9: Context-free languages (chapter 2)
        Feb. 16: Context-free languages (chapter 2)
        Feb. 23: Context-free languages (chapter 2) (**Chapter 1 & 2 Exam on Thursday**)
        Mar. 2: The Church-Turing Thesis (chapter 3)
        Mar. 9: **Spring Break**
        Mar. 16: The Church-Turing Thesis (chapter 3)
        Mar. 23: The Church-Turing Thesis (chapter 3)
        Mar 30: Decidability (chapter 4) (**Easter recess Thursday.**)
        April 6: Decidability (chapter 4)
        April 13: Decidability (chapter 4)
        April 20: (**Chapter 3 & 4 Exam on Thursday)**
        April 27: Reducibility (chapter 5)
        May 4: **Cumulative Final exam**, **Tues. 1:30 p.m – 4:00 p.m.**