

CS 3723

Programming Languages

SYLLABUS, Fall 2014

Course Name: CS 3723, Programming Languages

Semester: Fall 2014

Instructor Name and Contact Info: Neal R. Wagner, Email: neal.wagner@gmail.com

Number and Time:

- CS 3723, MWF 11:00 – 11:50 am

Final Exam: Thursday, 18 Dec 2014, 09:45 am - 12:15 pm

Course Web Pages: www.cs.utsa.edu/~wagner/CS3723/fall14/index.html

Course Description: Prerequisites: CS 2233 and (2213 or 3443). An introduction to high-level procedural, functional, and object-oriented programming languages, their theoretical foundations, organization, and implementation. Topics include formal syntax, compilers and interpreters, type systems, scoping and activation records, control structures, and data abstraction.

Textbooks: None required

Grade (Tentative factors and percentages):

- Homeworks (12 or 13, none dropped): $\geq 40\%$
- In-class quizzes (≥ 0 of them): $\leq 5\%$
- Mid-term exam (1, no make-ups): $\geq 20\%$
- Final exam (emphasis on second half): $\geq 25\%$
- Attendance (sign-in sheets): $\leq 3\%$

Outline of Topics:

- I. *Python Programming.*
- II. *Regular Expression Processor.* During the first 3 weeks or so we will show how a programming language can handle a regular expression. Specifically, we will show how the language can take an input regular expression R and determine the match data for an input string S .
- III. *Compiler for a Small Language.* During the next 5 or 6 weeks we will write a compiler program. You will write complete working code in the Python language.
- IV. *Investigate Several Other "Strange" Languages.* These may include Lisp, Postscript, and Prolog.

Academic Support: This is available from the instructor, the teaching assistant, from CS tutors, and from the Tomás Rivera Center (see www.utsa.edu/trcss).

Course Credit for Completing the Course Evaluation: It's not good policy to tell instructors which students have completed the evaluation before grades are assigned, so I won't be giving any points for filling out the form. (But, hey, you should fill it out, and please be nice!)

Disclaimer

Do not remove this disclaimer under penalty of law.

For optimum performance and safety, please read these instructions carefully.

Void where prohibited. No representation or warranty, express or implied, with respect to the completeness, accuracy, fitness for a particular purpose, or utility of these materials or any information or opinion contained herein. Actual mileage may vary. Prices slightly higher west of the Mississippi. All models over 18 years of age. No animals were harmed during the production of this product. Any resemblance to actual people, living or dead, or events, past, present or future, is purely coincidental. This product may be construed as an endorsement of any product or company, nor as the adoption or promulgation of any guidelines, standards or recommendations. Some names have been changed to protect the innocent. This product is meant for educational purposes only. Some assembly required. Batteries not included. Package sold by weight, not volume. Contents may settle during shipment. No user-serviceable parts inside. Use only as directed. Do not eat. Not a toy. Postage will be paid by addressee. If condition persists, consult your physician. Subject to change without notice. Times approximate. One size fits all. Colors may, in time, fade. For office use only. Edited for television. List was current at time of printing. At participating locations only. Keep away from fire or flame. Avoid contact with skin. Sanitized for your protection. Employees and their families are not eligible. Beware of the dog. Limited time offer. No purchase necessary. Not recommended for children under 12. Prerecorded for this time zone. Some of the trademarks mentioned in this product appear for identification purposes only. Freshest if eaten before date on carton. Subject to change without notice. Please allow 4 to 6 weeks for delivery. Not responsible for direct, indirect, incidental or consequential damages resulting from any defect, error or failure to perform. Shippery when wet. Substantial penalty for early withdrawal. For recreational use only. No Canadian coins. List each check separately by bank number. This is not an offer to sell securities. Read at your own risk. Ask your doctor or pharmacist. Parental guidance advised. Always read the label. Do not use while operating a motor vehicle or heavy equipment. Do not stamp. Breaking seal constitutes acceptance of agreement. Contains non-milk fat. Date as postmark. Lost ticket pays maximum rate. Use only in well-ventilated area. Price does not include taxes. Not for resale. Hand wash only. Keep away from sunlight. For a limited time only. No preservatives or additives. Keep away from pets and small children. Safety goggles required during use. If rash, irritation, redness, or swelling develops, discontinue use. Do not fold, spindle or mutilate. Please remain seated until the web page has come to a complete stop. Refrigerate after opening. Flammable. Must be 18 years or older. Seat height tables only for the upright position. Ropes a necessary evil. Directly into light. Avoid contact with face and eyes. Do not cook eggs. No MSG. Artificial claims or flavoring added. Flammability strictly prohibited. Pregnant women, the elderly, and children avoid prolonged exposure to this product. If ingested, do not induce vomiting. May contain nuts. Objects in mirror may be closer than they appear. Do not use if safety seal is broken. Apply only to affected areas. Do not use this product if you have high blood pressure, heart disease, diabetes, thyroid disease, asthma, glaucoma, or difficulty in urination. May be too intense for some viewers. In case of allergic reaction, seek professional assistance or contact a poison control center immediately. Many lawsuits look alike. Post office will not deliver without postage. Not the Beanie. Products are not authorized for use as critical components in life support devices or systems. Should not be used on any person. Discontinue use of the product if any of the following occur: itching, swelling, dizziness, nausea or loss of consciousness, fainting, allergic reactions, rash, hives, difficulty breathing, chest pain, changes in vision, tingling, numbness, or other symptoms. Do not use if you are pregnant, nursing, or breastfeeding. Do not use if you are taking medication. Do not use if you are taking medication. Do not use if you are taking medication.