CSCI-341 Computer Architecture Course Syllabus

Fall 2021

Course Description

Introduction to computer systems and their organization. Topics include CPU design and construction using logic gates, data representation, and assembly language representation of common programming language constructs including conditionals, loops and functions. The GCC compiler and the C programming language will be used to illustrate these topics.

Instructor

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Phone: 540.828.5754

Office: McKinney Center, Room 220

Office Hours: M (1pm-2pm), T (12pm-1pm), W (9am-10am), Th (12pm-1pm), or by appointment.

Lectures

Lectures are mandatory and are held on T/Th at 9:30 a.m. – 10:45 a.m. in McKinney 226.

Course Materials

But How Do It Know? The Basic Principles of Computers for Everyone (up to A few More Words on Arithmetic, pp.141) Scott, J. Clark Paperback 9780615303765

Computer Systems: A Programmer's Perspective

(Chapters 1-5) Bryant, Randal E., O' Hallaron, David R. Hardcover (3 Edition) 9780134092669

The C++ Programming Language (Optional)

(Chapters 6-12) Stroustrup, Biarne Paperback (4 Edition) 9780321563842

Please register for an AWS Student Account. We'll create and use Linux instances on the AWS infrastructure.

Course Website: http://n0code.net/work/teaching/courses/csci341/2021fall/

Grading

During this course you will be evaluated via daily quizzes and a comprehensive final exam. The Strong Work Ethic policy defined in the Course and Classroom Policies does not apply in this course. Students may use a hand-written spiral notebook (free of loose-leaf paper) during the quizzes when reading from Computer Systems: A Programmer's Perspective.

The final exam will be held on Wednesday, December 8 at 8:00 a.m.

Final numeric grades are based on the following percentages:

Percent of Final Grade Daily Quizzes 80 Final Exam 20

Course and Classroom Policies

Course and Classroom Policies for Fall 2021 can be found at http://n0code.net/work/teaching/syllabi/.

This syllabus may be adjusted throughout the course to provide for maximum student learning and contextual changes within the community of learners.