

Computer Architecture and Organization

COMSC-142

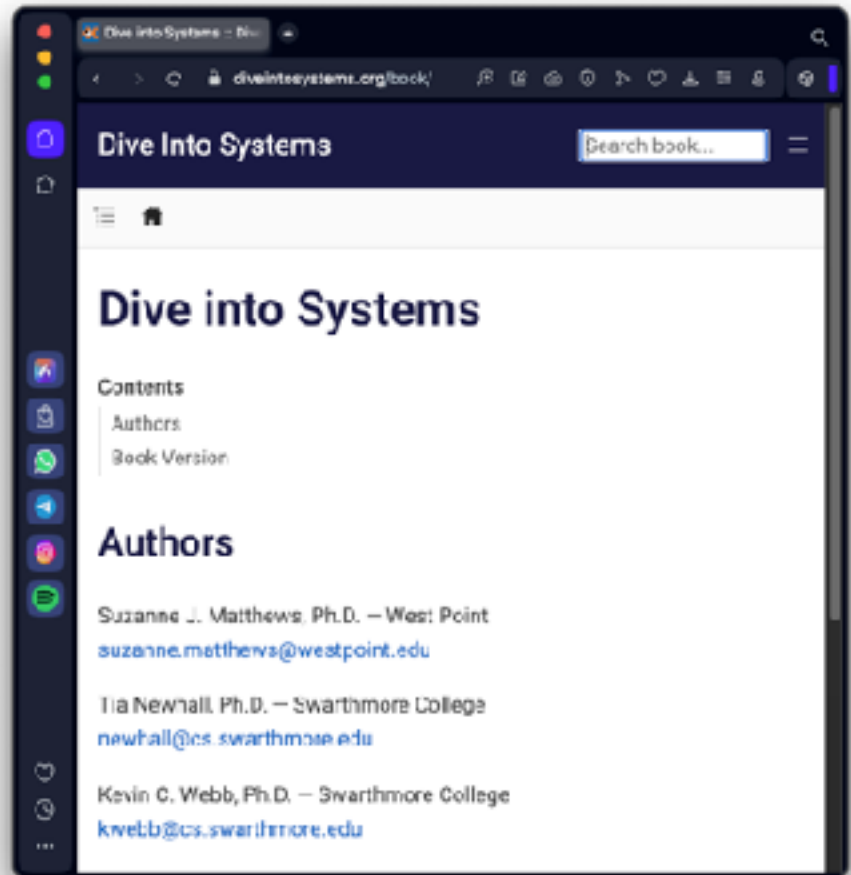
Spring 2025 Sam Bowne
Online, with optional meetings
Tues 6-9 pm
3 credits

Class Description

In this course, we analyze the organization and behavior of real computer systems at the assembly-language level. The mapping of statements and constructs in a 'high-level' language into sequences of machine instructions is studied, as well as the internal representation of simple data types and structures. Numerical computation is examined, noting the various data representation errors and potential procedural errors.

Student Learning Outcomes

- Be academically prepared to transfer to a Computer Science program at a four-year university
- Demonstrate the ability to solve a variety of problems using computational skills necessary for careers in computer science and other related fields



Mode of Delivery

The class is entirely online. Students can connect remotely to live class meetings via Twitch, or watch videos of class on Youtube.

Instructor Information

You can reach me by sending messages via Canvas, as explained on my website samsclass.info. You can also reach me on Twitch every evening at 7:30 pm Mon-Thu.

Prerequisites

ADVISORY: Eligibility for ENGL-090

Textbook

Dive into Systems, **free online**

Course Management System

All class materials are at samsclass.info including information about hands-on projects and quizzes. We will use a Canvas server, as explained on that site, for all examinations

Grading

Your grade is determined from hands-on projects and quizzes. Attendance is not graded. The system is:

- A 90% or more
- B 80 - 90%
- C 60 - 80%
- D 50 - 60[^]
- F less than 50%