

Syllabus of Introduction to Computer Programming

Joans Academy Fall 2011

1. What's programming
 - a. What is an Algorithm
2. Setting up development environment
 - a. Working on own computer
 - b. Working on host server
 - i. CLI
 - ii. GUI
3. Language survey
 - a. Scripting
 - b. Compiled
4. Short history of programming languages
5. Variables, data types, operators, and expressions
 - a. Arrays
 - b. Hashes
 - c. Structures/Objects
6. Flow control: selection and iteration
7. Functions
8. Programming style
 - a. Procedural
 - b. Object oriented
9. Networks programming
 - a. Server
 - b. Client
10. Debugging
11. Class Projects
 - a. Static HTML page on client side
 - b. Static HTML page on server side
 - c. Perl program on server CLI
 - d. Dynamic HTML page with Perl on server side
 - e. Dynamic HTML page with embedded JavaScript
 - f. HTML form page with both Perl and JavaScript
 - g. Student web site – goals to be determined based on students ability.