

COMP190-090 Programming in Perl

Course Objectives:

1. Master the basic syntax of Perl programming language.
2. Know selected advanced techniques.
3. Gain hands-on experiences with important application areas of Perl: web programming, databases and application development in Bioinformatics.

Prerequisites:

introductory programming course

Meeting Times and Place:

MTWRF 11:30 -1:00 in SN 014

Instructor: Jun (Luke) Huan

Office: SN307

Tel: 962-1843

Email: huan@cs.unc.edu

Office Hours: TR from 1:00 to 2:00 or by appointment.

Grading:

Preliminary Questions	5%(bonus)
Home works (seven)	30%
Midterms (two)	20%
Final	30%
Final project	15%
Quiz (five)	5%

Homework and Exams:

Total six homework/programming assignments will be given for the course. Students are encouraged to work together on the problem sets but should give their own answers. Homework/programming assignments are due in class on the due date given. Late assignments are acceptable up to three calendar days for maximal two times in the whole semester. In calculating your homework average, your lowest score will be dropped.

Two midterms and one final exam will be given for the class. The dates of the exams are given in the schedule. Final exam is comprehensive and is schedule on July 22 in the class meeting room at the class time.

Course Outline:

- o Introduction 1
 - Why Perl?
 - Perl and Web/Database
 - Perl and Bioinformatics
 - Overview of the course.
- o Basic Data Structures: 4
 - Array
 - Hash
 - String

▪ Basic I/O	
○ Pattern Matching	2
▪ Regular expressions	
▪ Substitution and matching	
▪ Meta characters	
○ Basic Control Structures	2
▪ If/Else/Elsif	
▪ For/until/while	
▪ Foreach	
○ Advanced Data Structures	4
▪ Pointers	
▪ Subroutine and scope	
▪ Advanced I/O	
▪ Packaging (*)	
▪ Interacting with system (*)	
○ Advanced Topics	6
▪ Perl CGI	
▪ Perl in Bioinformatics	
▪ Perl in Database	
○ Final Project Presentation	2
○ Class summary	1
○ Final Exam	1

* Only when there is enough time to cover

There are total 25 class meetings in the course and 23 are listed here. Two additional guest lectures are to be arranged.