**BINF 634 Fall 2022 Bioinformatics Programming**

**Instructor** - Dr.Jeff Solka (jsolka@gmu.edu)

**Meeting Place** – Online, See Blackboard site
**Meeting Time** - 4:30-7:10 pm Mondays

**Course Description:**This course will provide an introduction to Bioinformatic Programming using PERL. Some of the topics that will be covered include rudimentary language syntax, hashes,  subroutines, two-dimensional arrays, modules, CGI programming, MySQL, visualization, and BioPERL. GMU Blackboard at MASONFEDERATEDSERVICES will be used to collect assignments and address questions. It can be found here https://mymasonportal.gmu.edu/ultra/courses/\_439789\_1/cl/outline.

**Prerequisites:** Rudimentary biological background such as taught in BIOL 482 or the equivalent or instructor permission. Rudimentary programming background such as taught in IT 108 or CS 112 or the equivalent or instructor permission.

**Required Text:**

*Beginning Perl for Bioinformatics* by Tisdall

*Programming Perl (3rd Edition)* by Wall, Christiansen and Orwant

**Grading:**

* Programming assignments (50%)

–3-4 graded programming assignments

-Programming assignments must be turned in on time except in the case of a documented medical emergency.

• Exams: Midterm (20%) and Final (20%)

–May include both closed-book section and open-book programming problems

-The midterm and final must be turned in on time except in the case of a documented medical emergency

 -**University Mandated Final Exam Policy**

 “AP.3.10.1 Absences from Final Exams

Absences from final exams will not be excused by the instructor except for sickness on the day of the exam. Other causes must be approved by the student's academic dean or director. The effect of an unexcused absence from an undergraduate final exam shall be determined by the weighted value of the exam as stated in the course syllabus provided by the instructor. If absence from a graduate final exam is unexcused, the grade for the course is entered as F. See AP.3.3 Additional Grade Notations for information on being absent with permission.”

* In-class/Take home Quizzes, Labs (10%)
* In-class/Take come quizzes, labs must be turned in on time except in the case of a documented medical emergency

* Weekly homework assignments

–All HW assignments must be submitted to me via Blackboard by the beginning of the next class. HW assignments will not be graded individually, but you may be called upon to discuss your work during the next class.  Therefore, late assignments will not be accepted. Grading will be on the following scale. 93-100  (A), 90-92 (A-), 87-89 (B+), 83-86 (B), 80-82(B-), Below 80 C. Student averages will be rounded to the closest integer to determine final letter grades.