Approximate timeline during the semester (14-week semester)	Type of Collaboration			Course Materials Developed
	Biology			**Computer Science**
Week 2		**Guest lecture** by biology professor		**"DNA 101"** - an introductory lecture for computer science students along with a demonstration of DNA extraction "in the manner of Julia Childs"
Week 2 or 3	**Genomics Lab1** - Biology and computer science students share initial joint lab; work in BIO-CS teams ..... followed-up with homework			**BLASTing the Flagellar Genes** - an intro to NCBI, BLAST and PubMed database
	Joint Homework & BLAST Homework			
Week 3			initial genomics programming assignment -- DNA data and string algorithms	**Motif Finder** - an intro to DNA (*.fna) files and protein table (*.ptt) files; software to find all locations of a user-entered motif
Week 3		**Guest lecture** by computer science professor		Explanation of **DNA data files**, the **algorithm** in the Motif Finder software, and **potential tweaks** to suggest to the programmer
Week 4	**Genomics Lab2** Software demonstration of			**Tweaking Motif Finder** - demos of

	v1.0 leading to a design for v2.0		software; biologists suggest changes to programmers for (new) added functionality
Week 6	**Genomics Lab3** Towards innovative and creative searches in DNA		Introduction to pattern matching with **regular expressions** and **Perl** for both biologists and computer scientists
Week 8		second genomics programming assignment: recursion, recurrence relations, and dynamic programming	**IsPal** - finding "palindromes" or inverted repeats with potential mismatched base pairs: comparing algorithms $O(2N)$ vs. $O(N^2)$
Week 10	**Genomics Lab4** ... followed-up by informal out-of-class work on projects		**Planning for final projects** - review of **general specifications** (e.g., triplet repeat diseases), **suggested timeline**, and **coordination** of team day-timers
Near end of the semester	**Final oral presentations**		Bio-CS teams give talks.
Summary of planned development of course materials as viewed within an example of points of contact between "Cell Evolution" and "Algorithms"			