Special Topics in Bioinformatics – Fall 2022  
MBB 659 (SFU) [BIOF 501A (UBC)]  
http://bioinformatics.ubc.ca/MBB659  

Instructor: Dr. William Hsiao  
Office: Blusson Hall, Room 11008  
Phone number: 778-782-3299  
Email: wwhsiao@sfu.ca  
Office hours: by appointment

Email to all in class: mbb-659@sfu.ca

Class time: Thursdays 3-5 PM + 3 VanBUG Seminars (see schedule below)  
Class location: Echelon Building 5F, 570 West 7th Ave, Vancouver.

Class schedule:  
Classes are every Thursday for 14 weeks:  
September 8   Class 1: Course Introduction and Biological Databases  
September 15   Class 2: Overview of assignments and Genome Browsers  
(VanBUG on September 15th at 6PM)  
September 22   Class 3: Workflow reproducibility + 2 X 25 min presentations  
September 29   Class 4: Phylogenetics + 2 X 25 min presentations  
October 6   Class 5: Science communication presentations Day 1  
October 13   Class 6: Science communication presentation Day 2 + Phylogenetics  
October 20   Class 7: DNA Sequence Analysis + 2 X 25 min presentations  
(VanBUG on October 20th at 6PM)  
October 27   Class 8: Proteomics Analysis + 2 X 25 min presentations  
November 3   Class 9: Microbiome + 2 X 25 min presentations  
November 10   Class 10: Machine Learning and AI 2 X 25 min presentations  
November 17   Class 11: Networks and Pathways + 2 X 25 min presentations  
(VanBUG on November 17th at 6PM)  
November 24   Class 12: Cancer Genomics + 2 X 25 min presentations  
December 1   Class 13: Public Health Genomics + 2 X 25 min presentations  
December 8   Class 14: Class feedback + 2 X 25 min presentations

Topics are subject to change and will be confirmed closer to the beginning of the term. A detailed breakdown of presentation structure and timings will be provided to the students closer to the beginning of the term.

Grading:  
Science communication presentation (15%)  
Current paper presentation (25%)  
Term project (30%)  
Participation (in-class and online discussion forum; peer reviews, attendance) (30%)

Paper selection: Papers relevant to each topic will be selected by the (guest) instructors for the students to present. Science Communication paper will be selected by the students.

Class preparation: Your presentations will be delivered in person in class. Send your presentation to the TA at least an hour before the start of the course as a backup but otherwise come with your own laptop to be connected to the projector for presentation. Please do not go
overtime in your presentation because we have a tight schedule. Everyone (including presenters and instructors/TA) are expected to read all of the papers before each class. Students are also expected to participate in online discussion using Canvas.

**Recommended readings:**
(Links to an external site.)
https://web.stanford.edu/class/ee384m/Handouts/HowtoReadPaper.pdf  
(Links to an external site.)
http://collections.plos.org/roots-of-bioinformatics  
(Links to an external site.)

**Useful Links:**
(Links to an external site.)
http://www.pubmedcentral.nih.gov/  
(Links to an external site.)