

## Special Topics in Bioinformatics – Fall 2022

**MBB 659 (SFU) [BIOF 501A (UBC)]**

<http://bioinformatics.ubc.ca/MBB659>

**Instructor:** Dr. William Hsiao

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**Class time:** Thursdays 3-5 PM + 3 VanBUG Seminars (see schedule below)

**Class location:** Echelon Building 5F, 570 West 7<sup>th</sup> 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 15 <sup>th</sup> 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 + Phylodynamics
October 20	Class 7: DNA Sequence Analysis + 2 X 25 min presentations (VanBUG on October 20 <sup>th</sup> 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 17 <sup>th</sup> 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%)

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:**

<http://violentmetaphors.com/2013/08/25/how-to-read-and-understand-a-scientific-paper-2/>

(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>