# BIMM 194/BGGN 283
# Course syllabus

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Spring 2022- Live Lectures: Fridays  1:00p-2:20p Tata 3201

As this will be a discussion-heavy class I am not supporting a hybrid format. That being said, if you are not feeling well you can miss a class, no excuses needed, and one of our classes will be remote (noted on schedule). If you need to miss more than one class please contact me and I will do my best to accommodate. If you need special accommodations, please see the section on OSD accommodations below. I am happy to work with folks, but also want to make sure I provide the best possible educational experience for those taking my class.

**You must follow current UCSD masking guidelines**

**Instructor**: Alistair Russell, Ph.D.  **Email**: a5russell@ucsd.edu
**Pronouns :** He/him/his
For all correspondence, please include BIMM 194/BGGN 283 and your full name

**Office**: Tata 4105

**Office Hours**: By appointment

**Course Description:** This course will molecular considerations in modern deep sequencing. We will predominantly focus on the most common sequencing technology, Illumina sequencing, but will, towards the end of the class also cover long-read PacBio and MinIon technologies. We will cover how sequencers actually work, how material is generated for sequencing, and considerations in what technologies to use, how analysis may be performed, and artifacts or caveats to each of these decisions. By the end of the class, the goal is to be able to empower all students to make informed decisions on how to engage with deep-sequencing, and how to critically assess studies that use these technologies.

**Course Website/Canvas:** All materials for this course will be found on Canvas (https://coursefinder.ucsd.edu), and should automatically appear on your Canvas account as soon as you register for the class.

**Prerequisites:** BIMM 100. Podcast is available (https://podcast.ucsd.edu)

**Preparation and expectations**: A working knowledge of molecular biology is absolutely required for this class.

**Textbook**: There is not a required textbook for the course.

**Final Grade:** Your final grade will be determined by active participation in class discussions. In all classes where you are assigned a paper I will have a set of notecards with student's preferred names. I will ask question prompts you will be provided alongside each paper. I expect you to be able to provide a reasonable answer that shows an effort to engage with the literature. Your answer does not need to be "correct", but if called upon, and it is clear you have not made an honest effort to read the assigned literature, you will not receive participation credit for that class. All students can miss one class with no excuses before it impacts their grade. Thereafter, please contact me if you are going to miss class. If you grade is in jeopardy due to lack of participation I will reach out and contact you; with such a qualitative metric I want to make sure I am being transparent. If I do not reach out to you you are meeting all expectations and can expect full marks in my class.

**Examinations:** No exams

**Scientific articles**: We will read a total of ten scientific papers over the course of our class. Each set of assigned papers (1-2) will be posted to blackboard immediately after class with an accompanying "questions for consideration", which will be questions that I will use to guide our discussion during class.

**Statement on Office for Students with Disabilities (OSD):** To receive accommodation, students must present or email their "Authorization for Accommodation" (AFA) form provided by the Office for Students with Disabilities (OSD) to the instructor. I am happy to work with you on any accommodations you require to succeed in this class.

**Statement on Academic Integrity:** Integrity of scholarship is essential for an academic community. The University expects that both faculty and students will honor this principle and in so doing protect the validity of University intellectual work. For students, this means that all academic work will be done by the individual to whom it is assigned, without unauthorized aid of any kind. The consequences of being caught cheating can be severe. Information can be found here: http://www.ucsd.edu/current-students/academics/academic-integrity/index.html Students are expected to do their own work, as outlined in the UCSD Policy on Integrity of Scholarship: http://senate.ucsd.edu/Operating-Procedures/Senate-Manual/Appendices/2 Academic misconduct will NOT be tolerated. Any student who engages in suspicious conduct will be confronted and subjected to the disciplinary process. Cheaters will receive a failing grade on the exam or assignment, and/or in the course. They may also be suspended from UCSD pursuant to University guidelines. All class material, such as syllabus, readings, homework, scientific articles, lecture slides, etc. are copyrighted and cannot be posted to websites and/or distributed without instructor's approval for any reason. Students that sell and/or distribute course materials not only violates the student code of conduct, but also violates UC's 2005 policy on the Use of Recordings of Course Presentations: http://copyright.universityofcalifornia.edu/resources/ recorded-presentations.html .

**Academic misconduct includes but is not limited to:**
1. Cheating, such as using "crib notes", copying answers from another student during the exam, or forge assignments.
2. Plagiarism, such as using the writings or ideas of another person, either in whole or in part, without proper attribution to the author or the source. Copying anything from any source is plagiarism if the source is not clearly cited. Plagiarism is stealing someone else's ideas and presenting them as your own.
3. Collusion, such as engaging in unauthorized collaboration on exams or assignments, completing for another student any part or the whole of an exam or assignment, or procuring, providing or accepting materials that contain questions or answers to an exam or assignment to be given at a subsequent time.

**A note on COVID:** We are living in challenging times. I am empathetic to unique challenges each of you are facing while you are taking my class. My goal is to provide the best possible environment, within my power to do so, for you all to learn As our course continues throughout the quarter, with potentially volatile and rapidly-changing situations, I will do my best to adapt accordingly. No student will be docked points for staying home if they have experienced a potential exposure, or themselves may be sick.