



# Mathematical, Computational & Systems Biology (MCSB)

The biological sciences have entered a new era in which scientific advancement requires a quantitative understanding of large-scale and complex systems. There is a tremendous need to provide quantitative training for biologists, and biological training for mathematicians, physical and computer scientists, and engineers. To help meet this need, UC Irvine offers the Mathematical, Computational and Systems Biology (MCSB) Program, leading to M.S. and Ph.D. degrees.

The goal of UCI's MCSB Graduate Program is to provide students from a variety of educational backgrounds with training for research careers.

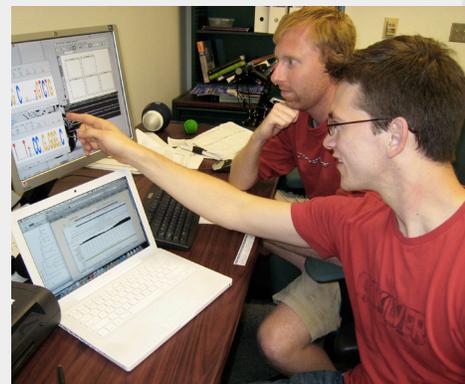


The program begins with an initial "gateway" year, during which all students receive basic training in principles of biology, as well as in mathematics, engineering and computer science.

A four-week "Boot Camp," offered prior to the start of the academic year, provides a thorough introduction to the MCSB Interdisciplinary Program, students and faculty. The incoming class of 2020 successfully completed the "Boot Camp" virtually!

Students also participate in research rotations, workshops, and directed reading of the Systems Biology literature. Upon successful completion of the first year, students select a thesis advisor from among the participating faculty, who represent departments throughout the biological, physical and information sciences and engineering.

After the rigorous first-year, Ph.D. program allows the flexibility to transfer into 10 departmental Ph.D. programs or remain in the interdisciplinary Ph.D. program.



- **137 Faculty**
- **10 Associated departments: Biological Chemistry, Biomedical Engineering, Computer Science, Development and Cell Biology, Ecology and Evolutionary Biology, Mathematics, Microbiology and Molecular Genetics, Molecular Biology and Biochemistry, Physics and Astronomy.**
- **148 students have entered**
- **Approx. 10 students per class**
- **13% URM; 41% women**
- **Of the 64 students graduated to date, 53% are in academia, 47% are in industry.**

\*as of Fall 2020

## Questions?

MCSB Graduate Program  
<https://ccbs.uci.edu/education/mcsb/>  
mcsb@uci.edu  
949.824.4120

## APPLY ONLINE

[www.grad.uci.edu/admissions](http://www.grad.uci.edu/admissions)

The hallmark of the MCSB Ph.D. program has been the strength of its student financial support. The MCSB Graduate Program is supported by funding from UCI's Graduate Division, and a training grant from the National Institute of General Medical Sciences.