About the Program

The 21-month MSGDA program combines coursework from life sciences and health sciences, practical experience through a summer internship, and hands-on learning in genetics, sequencing, and data analysis to prepare students for careers in a variety of settings. Upon completion of the program, students will be able to utilize their foundation in genetics and genomics along with a practical knowledge of data analytics and industry experience to be able to translate patient sequencing data into actionable clinical recommendations and bridge the gap between research scientists and clinical practitioners.

Year 1

In the first year, students gain a solid foundation in human genetics and genomics, medical genetics, bioinformatics, and an introduction to working in the bioscience industry and clinical settings. Students also learn about clinical trial design and data systems used in the bioscience industry and gain hands-on laboratory experience by generating and manipulating next-generation sequencing data.

In the summer, students will gain experience in human genomic data analysis by completing an internship in an industry or clinical laboratory setting.

Year 2

In the second year, students pursue in-depth courses in next-generation sequencing technologies, genetic variant interpretation, and genomic data visualization. Emerging topics in genomics, such as pharmacogenomics and metagenomics, are covered and prepare students for their capstone industry-sponsored project or research thesis.

For more information, please visit kgi.edu/msgda.
Why Pursue a Degree in Genomic Data Analytics at KGI?

• Join the growing field of genomics and help create effective and appropriate treatment for patients
• Learn to harness the power of Big Data to help patients through personalized precision medicine
• Distinguish yourself on the job market through team project experiences with genetics companies
• Understand how emerging companies (like 23andMe.com and ancestry.com) translate genotype data
• Help people on a large scale by improving clinical results
• Be at the forefront of next-generation sequencing technology
• Experience inter-professional education through collaboration with students from other KGI programs
• Combine your passions to make a broad-scale impact in the world of genetics and genomics

Concentrations

We have three concentrations depending on student interest: clinical decision support, clinical trial design, and assay development.

• Clinical decision support
  Designed for those interested in careers like clinical variant curator or clinical variant scientist.

• Clinical trial design
  Designed for those interested in contributing to personalized medicine by working at a pharmaceutical or biotech company in the drug development pipeline.

• Assay development
  Designed for those interested in helping genomics companies design new test panels or products for the diagnosis of disease.

All three concentrations prepare students for a variety of roles in not just the genomics industry, but also academia, pharmacogenomics, and more.

How to Apply

Dates and Deadlines

Start Terms: Fall
Application Deadline: Rolling

Prerequisites

The following courses are required for admission with a grade of C or better:

• Chemistry
• Biology
• Genetics

Courses in statistics, computer science, biochemistry, and social science are highly recommended.
Visit kgi.edu/msgda for credit hour requirements.

Application Requirements

The MSGDA program accepts all applications via PharmGrad. In addition to personal, demographic, and educational questions, the application requires:

• Official transcript(s)
• Current CV or resume
• Personal statement
• Three letters of recommendation

Admission Interviews: Once reviewed, applicants are selected for an interview by the admissions committee. Those selected will interview with one or more faculty members in the MSGDA program.
Visit kgi.edu/msgda for a list of all requirements.

Contact Us

School of Pharmacy and Health Sciences Admissions
535 Watson Drive, Claremont, CA 91711
Phone: 909.607.9145 | Fax: 909.607.8086
Email: sphs.admissions@kgi.edu
Website: kgi.edu

Student Affairs
909.607.0896 | student_affairs@kgi.edu

Financial Aid
909.607.9928 | financial_aid@kgi.edu