

Interdisciplinary Perspectives on Genes and Genomes (Minor)

The Interdisciplinary Perspectives in Genetics and Genomics (IPGG) Minor is designed to include students from a variety of life sciences programs at NC State and builds on the philosophy that the exploration of genes and genomes informs all fields of biology. The IPGG Minor will help build a strong, cohort-based graduate community representing excellence in education and research. Scientific diversity is key to the IPGG Minor, and students are encouraged to join this minor program from any of the affiliated STEM fields.

The IPGG Minor program is an innovative, project-based curriculum (<https://ggscholars.org/one-year-training-curriculum/>) that integrates foundational conceptual training in genetics and genome-scale techniques with big data analysis and professional development. The IPGG Minor students will provide a critical opportunity for students to join a community-based learning environment to understand how to help develop the tools needed for working with diverse teams on collaborative scientific projects. One of the goals of the Minor is to help students be involved in and build the capacity for interdisciplinary research within the fields of genetics and genomics. The curriculum associated with the minor will provide hands-on opportunities to develop white papers or proposals with an interdisciplinary group.

One of the missions at NC State is to develop university-wide interdisciplinary research that informs society and based on this goal, there is even more of a need to provide our natural science students with exposure to the societal and cultural aspects of genetics and genomics.

Minor Requirements

12 credit hours from a list of approved courses are required, all of which must come from the list of core GGS courses. The choice of courses is consistent with the interdisciplinary outlook of this minor, namely that students will learn the basic concepts and principles underlying genetic and genomics.

More Information

IPGG Program Website (<https://gga.ncsu.edu/ipgg/>)

Masters and Doctoral Minor Requirements

Code	Title	Hours
Core Courses		12
GGS 770	Genetics & Genomics Survey Course	
GGS 771	Data Science for Genetics & Genomics	
GGS 840	Professional Development & Ethics in Genetics & Genomics	

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Additional courses may be added to the approved list, as determined by the Executive Committee. Courses may be substituted at the Directors' discretion. A grade of B- or higher must be achieved in each course counted towards the minor.

Total Hours 12

Professors

Rodolphe Barrangou

Joe Barycki

Russel Borski

Matthew Breen

Gina Brown-Guedira

Jose Bruno-Barcena

Jason Delborne

Ralph Dewey

John Godwin

Fred Gould

Christine Hawkes

Cathrine Hoyos

Mike Hyman

Rebecca Irwin

Fikret Isik

Sam Jones

Alun Lloyd

Terri Long

Marce Lorenzen

Nanette Nascone-Yoder

Jun Ninomiya-Tsuji

Mette Olufsen

Balaji Rao

Dorith Rotenberg

Coby Schal

Max Scott

Heike Sederoff

Rob Smart

Sid Thakur

Anna Whitfield

Brian Wiegmann

Cranos Williams

Deyu Xie

Jeff Yoder

Associate Professors

Hamis Ashrafi

David Aylor

Yevgeny Brudno

Nick Buchler

Martha Burford Reiskind

Ben Callahan

Michael Cowley

Jillian De Gezelle

Colleen Doherty

Mary Elting

Claire Gordy

Whitney Jones

Albert Keung

Manuel Kleiner

Kurt Marsden

Kelly Meiklejohn

Dahlia Nielsen

Xinxia Peng

Tony Planchart

David Rassmussen

Michael Reiskind

Reade Roberts

Anna Stepanova

Casey Theriot

Assistant Professors

Ruben Rellan Alvarez

Oliver Baars

Christa Baker

Michael Bradshaw

Eric Brooks

Zixuan Cang

Mallory Choudoir

Carter Clinton

Nathan Crook

Jeff Dunne

Natalia Duque-Wilckens

Kerim Eroglu

Joe Gage

Rafael Guerrero

Jonathan Hall

Caitlin Heil

Skylar Hopkins

Alejandra Huerta

Amanda Hulse-Kemp

Sharonda LeBlanc

Xingcheng Lin

Wusheng Liu

Gareth Powell

Ryan Sartor

Seema Sheth

Javier Lopez Soto

Josh Strable

Acer VanWallendael

Justin Whitehill

Christina Zakas

Research Professors

Jim Holland

Imara Perera

Associate Research Professor

Liz Kierepka