# Genetics (MS)

## Degree Requirements

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
<th>Counts towards</th>
</tr>
</thead>
<tbody>
<tr>
<td>GN 701</td>
<td>Molecular Genetics</td>
<td></td>
<td></td>
</tr>
<tr>
<td>GN 702</td>
<td>Cellular and Developmental Genetics</td>
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<tr>
<td>GN 703</td>
<td>Population and Quantitative Genetics</td>
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<tr>
<td>GN 810</td>
<td>Special Topics in Genetics (Journal Club)</td>
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<tr>
<td>GN 850</td>
<td>Professionalism and Ethics</td>
<td></td>
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<tr>
<td>ST 511</td>
<td>Statistical Methods For Researchers I</td>
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### Core Courses

<table>
<thead>
<tr>
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### Teaching Requirement

<table>
<thead>
<tr>
<th>Code</th>
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<th>Hours</th>
<th>Counts towards</th>
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</thead>
<tbody>
<tr>
<td>GN 685</td>
<td>Master's Supervised Teaching</td>
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### Elective Course

<table>
<thead>
<tr>
<th>Code</th>
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<tbody>
<tr>
<td>GN 713</td>
<td>Quantitative Genetics and Breeding</td>
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<td>GN 721</td>
<td>Genetic Data Analysis</td>
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<td>GN 725</td>
<td>Forest Genetics</td>
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### Other Elective

<table>
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<tr>
<th>Code</th>
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<tbody>
<tr>
<td>GN 750</td>
<td>Computational Molecular Evolution</td>
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<tr>
<td>GN 751</td>
<td>Quantitative Genetics Theory and Methods</td>
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<tr>
<td>GN 758</td>
<td>Microbial Genetics &amp; Genomics</td>
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<td>GN 761</td>
<td>Advanced Molecular Biology Of the Cell</td>
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<tr>
<td>GN 768</td>
<td>Nucleic Acids: Structure and Function</td>
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<td>GN 810</td>
<td>Special Topics in Genetics</td>
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<tr>
<td>GN 820</td>
<td>Special Problems</td>
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<tr>
<td>ST 590</td>
<td>Special Topics (Bioinformatics I)</td>
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<td>ST 590</td>
<td>Special Topics (Bioinformatics II)</td>
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<td>PB 780</td>
<td>Plant Molecular Biology</td>
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<td>PB 824</td>
<td>Topical Problems (Topics in Plant Molecular Genetics)</td>
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<td>BCH 701</td>
<td>Macromolecular Structure</td>
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<td>BIT 510</td>
<td>Core Technologies in Molecular and Cellular Biology</td>
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<tr>
<td>BIT 815</td>
<td>Advanced Special Topics</td>
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### Total Hours

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<tbody>
<tr>
<td></td>
<td></td>
<td>32</td>
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</tbody>
</table>

1. Only three hours of these courses may be counted toward the primary elective requirement.
2. Other courses that do not appear on this list may be counted if they have substantial genetics content. Please consult with the Director of Graduate Programs if you would like to count a course as an elective that is not on this list.

## Elective Courses

### Faculty

### Full Professors

Jose Miguel Alonso
Peter J. Balint-Kurti
Rodolphe Barrangou
David M. Bird
Adam Joseph Birkenheuer
Matthew Breen
Ignazio Carbone
Ralph A. Dean
Ralph E. Dewey
Robert Graham Franks
Troy Ghashghaei
John R. Godwin
Major M. Goodman
Fred L. Gould
Candace Hope Haigler
Linda Kay Hanley-Bowdoin
Christine Veronica Hawkes
James B. Holland
Fikret Isik
Ramsey S. Lewis
Hsiao-Ching Liu
Steven Lommel
James W. Mahaffey
Christian Maltecca
Carolyn Jane Mattingly
Kathryn Montgome Meurs
Spencer V. Muse
Natasha J. Olby
Charles H. Opperman
Balaji M. Rao
Emilie Francesca Rissman
Jean B. Ristaino
Coby J. Schal
Maxwell J. Scott
Heike Inge Ada Sederoff
Seth M. Sullivant
William F. Thompson
Jeffrey L. Thorne
Jung-Ying Tzeng
Keith R. Weninger
Ross W. Whetten
Brian M. Wiegmann
Qiuyun Xiang
Deyu Xie
Jeffrey A. Yoder
Zhaobang Zeng

Associate Professors
John J Classen
David Lawrence Aylor
Chase Beisel
Nicolas Emile Buchler
Gavin Clay Conant
Shobhan Gaddameedhi
Steffen Heber
Vasu Kuraparthy
Randall Brian Langerhans
Terri A. Long
Marce D. Lorenzen
Ivana Mali
John Edward Meitzen
Susana Rita Milla-Lewis
Nanette M. Nascone-Yoder
Dahlia M. Nielsen
Xinxia Peng
Marcela Pierce
Antonio Plancharth
David Michael Reif
Michael Hay Reiskind
Reade Bruce Roberts
Michae L. Sikes
Rosangela Sozzani
Anna N. Stepanova
Yihui Zhou

Assistant Professors
Hamid Ashrafi
Christa Baker  
Louis-Marie Bobay  
Benjamin John Callahan  
Carter Clinton  
Michael Anthony Cowley  
Nathan Crook  
Colleen Jennifer Doherty  
Abdulkerim Eroglu  
Rafael Felipe Guerro Farias  
Joseph Gage  
Amanda Marie Hulse  
Albert Jun Qi Keung  
Manuel Kleiner  
Caroline Laplante  
Wusheng Liu  
Anna Michelle Locke  
Elizabeth Lucas  
Kurt Marsden  
Santosh Kumar Mishra  
Casey C. Nestor  
Benjamin J. Reading  
Ruben Rellan Alvarez  
Adriana San Miguel Delgadillo  
Caitlin Suzanne Smukowski Heil  
Maria Rodgers  
Eduardo Javier Lopez Soto  
Casey Michelle Theriot  
Laurianne Chantal Van Landeghem  
Acer VanWallendael  
Sara Villani  
Justin Graham Alexander Whitehill  
Christina Zakas  

William Reid Atchley  
Stephanie E. Curtis  
Eugene Eisen  
Charles S. Levings III  
Todd Robert Klaenhammer  
Wesley Edwin Kloos  
Dale F. Matzinger  
Wendell Herbert McKenzie  
John G. Scandalios  
Henry E. Schaffer  
Ron Ross Sederoff  
Charles William Stuber  
Earl A. Wernsman  

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**Adjunct professors**  
Robert R. Anholt  
Trudy F. MacKay  
Alison Anne Motsinger-Reif  
Nadia Singh  

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**Emeritus Professors**  
Roderick M Rejesus