

BACHELOR OF SCIENCE IN GENOMICS & MOLECULAR GENETICS

(as approved MMG faculty 03/17/05, UCC 02/01/06)

College of Natural Science

University (Integrative Studies & Tier I Writing Courses) (20 credits)

Tier 1 Writing (WRA 1XX)	4 credits
Social Behavioral and Economic Sciences (ISS 2XX & 3XX).	8 credits
Arts and Humanities (IAH ≤210 & ≥211).	8 credits

College of Natural Science (40-44 credits)

Mathematics (MTH) - 132 and STT 231 or STT 421 <u>or</u> 124 and STT 231 or STT 421	6 credits
Physics (PHY) - 231, 232, 251, 252 (or web equivalent)	8 credits
<u>or</u> 183, 184, 191, 192	10 credits
Chemistry (CEM)-General-141, 142 <u>or</u> 151, 152	7 or 8 credits
Laboratory - 161, 162	2 credits
Organic - 251, 252, 255 <u>or</u> 351, 352, 355	8 credits
Biological Science (BS) - 110, 111, 111L	9 credits

Departmental Requirements (35 credits)

a. Core Courses

Biochemistry - BMB 461, 462	6 credits
Introductory Microbiology - MMG 301	3 credits
Introductory Microbiology Lab - MMG 302	1 credit
*Advanced Microbiology Laboratory - MMG 408	3 credits
Microbial Genetics - MMG 431	3 credits
Fundamental Genetics - ZOL 341.	4 credits
Microbial Genomics - MMG 433 (Spring)	3 credits
Either: Prokaryotic Cell Physiology - MMG 421	3 credits
<u>or</u> Eukaryotic Cell Biology - MMG 409	3 credits

b. Capstone Experience

⌘Undergraduate Research Seminar - MMG 492	1 credit
<u>and</u> Undergraduate Research - MMG 499** or 499H**	2 credits
<u>or</u>	
Current Topics in Microbiology - MMG 491	3 credits

c. Complete 2 of the following courses:

MMG 413	Virology (3 cr)
MMG 425	Microbial Ecology (3 cr)
MMG 445	Basic Biotechnology (3 cr)
MMG 451	Immunology (3 cr)
ANS 425	Principles of Animal Biotechnology (3 cr)
CSS 350	Introduction to Plant Genetics (3 cr)
CSS 441	Plant Breeding & Biotechnology (3 cr)
ZOL 404	Human Genetics (3 cr)

*Fulfills Tier II Writing requirement

**Variable credit course (1-3 credits per semester; 6 credit maximum)

⌘Recommended experience