**I) Communications (13 credits)**  
- ___ Engl 150 (3) and ___ Engl 250 (3)  
- ___ Sp Com 212 (3)  
- ___ Engl 302 (3) or ___ Engl 309 (3) or ___ Engl 314 (3) or ___ Engl 312 (3)  
- ___ Lib 160 (1)  

**II) Mathematical Sciences (11-12 credits)**  
- ___ Stat 101 (4) or ___ Stat 104 (3)  
- ___ Math 160 (4) or ___ Math 165 (4)  
- ___ Stat 301 (4) or ___ Math 166 (4)  

**III) Physical Sciences (32 credits)**  
**General Chemistry (8 credits)**  
- ___ Chem 177(4), 177L(1) Gen. Chem I  
- ___ Chem 178 (3), 178L (1) Gen Chem II  
**Physics (10 Credits)**  
- ___ Phys 111/111L (5) Gen. Physics I  
- ___ Phys 112/112L (5) Gen. Physics II  
**Organic Chemistry (8 credits)**  
- ___ Chem 331 (3), 331L (1) Organic Chem I  
- ___ Chem 332 (3), 332L (1) Organic Chem II  
**Biochemistry (6 credits)**  
- ___ BBMB 404 (3) Biochemistry I  
- ___ BBMB 405 (3) Biochemistry II  

**IV) Personal Development, Human Relations, and Global Awareness (Total of 15 credits)**  
- ___ Three credits in humanities  
- ___ Three credits in social sciences  
- ___ Three credits in ethics  
- ___ Three credits in international diversity  
- ___ Three credits in US diversity  
- ___ Three credits in Environmental Awareness  

**V) Biological Sciences (18 credits)**  
- ___ Biol 211 (3) & ___ Biol 211L (1) Principles of Bio I  
- ___ Biol 212 (3) & ___ Biol 212L (1) Principles of Bio II  
- ___ Biol 313 (3) & ___ Biol 313L (1) General Genetics  
- ___ Biol 315 (3) Evolution  

**VI) Microbiology (Total of 31 credits)**  
**Core Microbiology Courses (16 credits)**  
- ___ F MICRO 110 (1) Orientation  
- ___ F/S MICRO 302 (3) Biology of Micro  
- ___ F MICRO 310 (3) Medical Microbiology  
- ___ S MICRO 320 (4) Molecular and Cellular Bact.  
- ___ S* MICRO 430 (3) Micro diversity & Ecology  
- ___ or ___ S MICRO 477 (3) Bact-Plant Interactions or ___ F Micro 456 (3) Mycology  
- ___ S MICRO 450 (2) Senior Seminar  
- ___ F MICRO 451 (R) Junior Survey  
**Core Laboratory Courses (6 Credits)**  
- ___ F/S MICRO 302L (1) General Micro Lab  
- ___ F MICRO 310L (1) Medical Micro Lab  
- ___ F/S MICRO 440 (4) Microbial Genetics & Physiology & Diversity & Ecology Lab  
**Microbiology Electives – (9 credits required) with no more than 3 credits from laboratory courses**  
**Common Clinical Electives**  
- ___ S MICRO 374 (3) Insects & Our Health  
- ___ F MICRO 408 (3) Virology  
- ___ S VDPAM 428 (3) Princ. Of Epidemiology  
- ___ S MICRO 475 (3) Immunology  
- ___ S MICRO 475L (1) Immunology Lab  
- ___ F MICRO 586 (3) Medical Bacteriology  
**Common Environmental Electives**  
- ___ S MICRO 353 (3) Intro Parasitology  
- ___ S* MICRO 430 (3) Micro diversity & Ecology  
- ___ F MICRO 456 (3) Mycology  
- ___ S MICRO 477 (3) Bacteria-Plant interactions  
- ___ F MICRO 487 (3) Microbial Ecology  
**Common Physiology/Genetics Electives**  
- ___ F* MICRO 402 (3) Microbial Genetics  
- ___ S* MICRO 430 (3) Micro diversity & Ecology  
**Common Food Microbiology Electives**  
- ___ S MICRO 407 (3) Micro Food Safety  
- ___ S* MICRO 419 (3) Foodborne Hazards  
- ___ F MICRO 420 (3) Food Microbiology  
- ___ S MICRO 421 (3) Food Microbiology Lab  
- ___ F/S/SS MICRO 490 (1-3) Independent Study  

**VII) Courses for Genetics Major (12-13)**  
- ___ F GEN 409 (3) Molecular Genetics  
- ___ S GEN 410 (3) Analytical Genetics  
- ___ S GEN 462 (3) Evol Genetics or ___ S EEOB 563 (3) Molec. Phylogenetics  
- ___ F GEN 322 or GEN 444 or S GEN 349 (one course in Bioinformatics)  
- ___ F GEN 491 (1) Senior Seminar or ___ MICRO 451 (R) Senior Survey  

F=offered fall semester, S=offered spring semester,  
F*/S* = offered alternate fall or spring  
Greyed out Courses = specific for genetics
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Updated 5/2019