NDSU College of Agriculture, Food Systems, & Natural Resources - Bachelor of Science Degree
Major: Microbiology
Curriculum Guide effective Fall 2013

STUDENT: ___________________________ STUDENT ID#: ___________________________ ADVISOR: ___________________________

IMPORTANT: All courses are required unless otherwise noted. Students are fully responsible for academic decisions, including selection of courses, meeting prerequisites, and adhering to policies, procedures and deadlines. Keep this guide with your personal records and update regularly. Academic advising is available through your assigned advisor. For additional information refer to the NDSU Bulletin or call the Office of Registration & Records (R&R), Ceres 110, (701)231-8718.

KEY:  *

† Denotes a General Education course specific to this major which may exceed the General Education minimum credit requirement. + Denotes capstone.

() Indicates a former number of the same course.

^ Indicates semester/year course is offered: fall, spring, summer only, odd years, even years.

NOTE: A minimum grade of "C" in major courses and 2.5 cumulative GPA are required to remain in the Microbiology major.

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GENERAL EDUCATION

F First-Year Experience  1
Applies to entering freshmen and new students who transfer fewer than 24 semester credits.

AGRI/UNIV 189
Skills for Academic Success  ___

C Communication  12
Students with an ACT composite score less than 21 must take Eng 110 (students authorized to by-pass Eng 110 must earn a grade of C or higher in Eng 120 to receive a passing grade (P) for Eng 110).

COMM 110 (CCN)
Fundamentals of Public Speaking ___

ENGL 110 (CCN)
College Composition I ___

ENGL 120 (CCN)
College Composition II ___

*UPPER-DIVISION ENGL
Miss 354 Scientific Writing ___

^ Or other approved upper level writing intensive course. This course will meet the COAFSNR writing/speaking requirement.

R Quantitative Reasoning  3

* STAT 330 Intro Statistics ___

S Science & Technology
Requirement met with SUPPORTING courses below:

A Humanities/Fine Arts  6
No more than 3 credits may be in fine arts performance.

B Social/Behavioral Sciences  6

W Wellness  2

D Cultural Diversity
Any General Education course approved for cultural diversity from A or B above.

G Global Perspectives
Any General Education course approved for global perspectives from A or B above.

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MAJOR

minimum grade of a "C" required in major courses

Microbiology Core

MICR 350 General Microbiology I ___ f
MICR 350L General Micro I Lab ___ s
MICR 450 Infectious Disease Pathogenesis ___ s
MICR 450L Infectious Dis Path Lab ___ s
MICR 470 Basic Immunology ___ f
MICR 471 Immun & Serology Lab ___ f
MICR 475 Animal Virology ___ f
MICR 480 Bacterial Physiology ___ s
MICR 482 Bact. Genetics & Phage ___ f
+MICR 486 Capstone Experience/IS ___ s

Microbiology Electives  6
(3 credits maximum allowed for MICR 370-399 or 491-499)

MICR 463 Clinical Parasitology ___ f
MICR 379 Study Abroad ___ s
MICR 445 Animal Cell Culture Tech (LAB) ___ f
MICR 452 Microbial Ecology ___ f
MICR 453 Food Microbiology ___ f
MICR 464
Etiology of Foodborne Disease ___ f
MICR 465 Fund. of Animal Disease ___ f
MICR 474 Epidemiology ___ f
MICR 491 Seminar ___ f
MICR 494 Individual Study ___ f
MICR 496 Field Experience ___ f
MICR 499 Special Topics ___ f
MICR 561 Micro Lab for Pharmacy ___ f
MICR 472 Clinical Immunology ___ f
MLS 435 Hematology ___ f
BIOC 487 MoBio of Gene Expression ___ f
PPTH 460 Fungal Biology ___ f

SUPPORTING

AGRI 150
Agriculture Orientation  ___ f

BIOC 460 AND 460L Fundamentals of Biochemistry and Molecular Biology I ___ f

BIOC 461 Fundamentals of Biochemistry and Molecular Biology II ___ f

* BIOC 150 AND 150L (CCN)
General Biology I ___ f
General Biology I Lab ___ f

Other BIOC/ BOT/ ZOO ___ f

Suggested BIOC 151 AND 151L (CCN)

General Biology II ___ f
General Biology II Lab ___ f

* CHEM 121 AND 121L (CCN)
General Chemistry I ___ f
General Chemistry I Lab ___ f

* CHEM 122 AND 122L (CCN)
General Chemistry II ___ f
General Chemistry II Lab ___ f

CHEM 341 AND CHEM 341L (CCN)
Organic Chemistry I ___ f
Organic Chemistry I Lab ___ f

CHEM 342 (CCN)
Organic Chemistry II ___ f

MATH 103 AND MATH 105
College Algebra (CCN) ___ f
Trigonometry (CCN) ___ f

-OR-  * MATH 146 (CCN)
Applied Calculus ___ f

* PHYS 211 AND 211L (CCN)
College Physics I ___ f
College Physics I Lab ___ f

* PHYS 212 AND 212L (CCN)
College Physics II ___ f
College Physics II Lab ___ f

* PLSC 315 AND 315L (CCN)
Genetics ___ f
Genetics Lab ___ f

MINOR optional

A minor is a grouping of similar courses totaling a minimum of 16 credits. Obtain a Minor Approval form from the granting department and submit to R & R.

Suggested minor(s): Biotechnology; Chemistry; Food Safety.

FREE ELECTIVES to complete 128 credits

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GRADUATION checklist

☐ Total credits………………………………... 128
Co-op credits do not count toward the total.

☐ Upper-level (300/400 level) credits…………… 37
Accepted only from 4-year institutions.

☐ Residence:
Credits from a 4-year institution............. 60
Credits taken at NDSU...................... 36
...15 of the 36 must be in the major;
...15 of the 36 must be upper-level courses.
The last 30 credits must be taken at NDSU.

☐ GPA (grade point average):
Cumulative........................................ 2.5

Preparation Forms:
www.ndsu.nodak.edu/ndsu/deott/forms
Submit to: Office of Registration & Records, Ceres 110

☐ Audit Request post card (mailed to you upon completion of 75 credits). Return the card; an audit listing all remaining requirements will be mailed 2 semesters before you expect to graduate.

☐ Application for Undergraduate Degree form.
Submit as you register for your last semester in order to declare your intent to graduate.