BACHELOR OF SCIENCE DEGREE IN MICROBIOLOGY

This checklist is intended as a guide and is not an official document.
Credit Type – EN=Enrollment at UA, IP=In Progress, TR=Transfer Credit, TE=Test Credit

NAME ________________________________________           SID # ____________________ DATE: ______________

GENERAL REQUIREMENTS

Mathematics Requirement: (3-5 Units)
Complete one of the following:
- MATH 113 – Elements of Calculus         3____
- MATH 122A/B – Functions of Calculus /First-Semester Calculus   5____
- MATH 125 – Calculus I                   3____

Composition Requirements: (3-6 Units)
ENGL 101 – Freshman Composition     3____
ENGL 102 – Freshman Composition     3____
or
ENGL 109H – Advanced First Year Composition    3____

Second Language Requirements: (0-8 Units)
Complete one of the following:
- Pass a language proficiency exam at 2nd semester level  _____
- Complete courses through 2nd semester proficiency    _____

General Education Requirements: (21-24 Units)
Tier I Individuals and Societies
150 A, B, C or D 3____
Tier I Tradition and Cultures
160 A, B, C or D 3____
Tier II Individuals & Societies 3____
Tier II Humanities 3____
Tier II Arts 3____
Diversity Emphasis Course 3____

Note: Certain Tier I and Tier II courses can also be used to meet this requirement

**Tier I and II Natural Sciences Requirement is satisfied by MICRO major coursework.

Supporting Coursework: (46-47 Units)

SUPPORTING COURSEWORK

MCB 181R – Introductory Biology I          3____
MCB 181L – Introductory Biology I Lab      1____
ECOL 182R – Introductory Biology II        3____
ECOL 182L – Introductory Biology II Lab    1____
MIC 285R – Principles of Microbiology (SP only) 4____
MIC 285L – Principles of Microbiology Lab (SP only) 1____
CHEM 151 – General Chemistry I            4____
CHEM 152 – General Chemistry II           4____
CHEM 241A – Organic Chemistry I           3____
CHEM 243A – Organic Chemistry I Lab       1____
CHEM 241B – Organic Chemistry II          3____
CHEM 243B – Organic Chemistry II Lab      1____
BIOC 384 – Foundations in Biochemistry     3____

Communication: Complete one of the following:
- ALC 422 – Communicating Knowledge in Agriculture and Life Sciences (F only) 3____
- COMM 101 – Introduction to the Study of Communication 3____
- COMM 119 – Public Speaking 3____

PHYS 102 – Introductory Physics I          3____
PHYS 181 – Introductory Physics I Lab      1____
PHYS 103 – Introductory Physics II         3____
PHYS 182 – Introductory Physics II Lab     1____

Statistics: Complete one of the following:
- AREC 239 – Introduction to Statistics and Data Analysis (SP only) 4____
- MATH 263 – Introduction to Statistics and Biostatistics 3____
- PSY 230 – Psychological Measurements and Statistics 3____
- SBS 200 – Introduction to Statistics for the Social Sciences 3____

Major Core Coursework: (28 Units)

MIC 328R – Microbial Physiology (SP only) 3____
MIC 350 – Molecular Microbiology (Fall only) 3____
MIC 419 – Immunology (Fall only)           4____
MIC 421B – Microbial Techniques (Fall only) 5____
MIC 428R – Microbial Genetics (SP only)    3____
MIC 428L – Microbial Genetics (SP only)    2____

MIC Electives _____ out of 8 units

For more information, please contact:
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Microbiology Electives (2020 Catalog)

*Up to 3 units of Directed Research (MIC 492), Independent Study (MIC 399/499), Internship (MIC 493), or Preceptorship (ACBS 491) can be counted as elective units. Must be microbiology related.

**Fall Semester**
- ACBS 380R- Food Safety & Microbiology (3)
- ACBS 380L- Food Safety & Microbiology (1)
- ACBS 403R- Biology of Animal Parasites (3)
- ACBS 403L - Biology of Animal Parasites Lab (1)
- ACBS 443- Research Animal Methods (3)
- ACBS 466- Principles of Disease (3)
- ACBS 467- Computation in Biomedicine (3)
- MIC 329A- Microbial Diversity (3)
- MIC 340- Introduction to Biotechnology (3)
- MIC 420- Pathogenic Bacteriology (3)
- MIC 450- Veterinary Microbiology (3)
- MIC 452- Antibiotics: A Biological Perspective (3)
- BIOC 385- Metabolic Biochemistry (3)
- ECOL 320- Genetics (4)
- ECOL 326- Genomics (3)
- ENTO 310- Living in Symbiosis (3)
- ENVS 425- Environmental Microbiology (3)
- ENVS 426- Environmental Microbiology Lab (2)
- MCB 422- Problem Solving with Genetic Tools (3)
- PLP 305- Introductory Plant Pathology (3)
- PLP 320- Microbiomes (3)
- PLP 427R- General Mycology (3)
- PLP 427L- General Mycology Lab (2)

**Spring Semester**
- ACBS 313- Principles of Animal Genetic Systems (3)
- ACBS 317- One Health: A Microbial Perspective (3)
- ACBS 405- Principles of Livestock Health Management (3)
- ACBS 423- Mechanisms of Disease (3)
- MIC 430- Food Microbiology and Biotechnology (3)
- MIC 430L- Food Microbiology and Biotechnology Lab (2)
- MIC 433- Medical and Molecular Virology (4)
- BIOC 385- Metabolic Biochemistry (3)
- ECOL 475- Freshwater and Marine Algae (4)
- MCB 410- Cell Biology (3)
- MCB 422- Problem Solving with Genetic Tools (3)
- MCB 473- Recombinant DNA Methods and Applications (4)
- PLS 333- General Virology (3)
- PLS 456- Topics in Biotechnology (3)

**Summer Semester**
- ACBS 317- One Health: A Microbial Perspective
- MIC 329A- Microbial Diversity (3)
- BIOC 385- Metabolic Biochemistry (3)
- ECOL 320- Genetics (4)
- ECOL 326- Genomics (3)
- MCB 422- Problem Solving with Genetic Tools (3)

Notes:

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