



Interamerican University of Puerto Rico
Aguadilla Campus
Department of Science Technology

Sequential Bachelor of Science in Microbiology

Effective Date: 2018

FIRST YEAR – FIRST SEMESTER

| CODE | COURSE | CRS. |
|-------------------------------------|-----------------------------------------------------------------------|-----------|
| BIOL 1101 | General Biology I (concurrent requirement BIOL 1103) | 3 |
| BIOL 1103 | Biology Skills Laboratory I (concurrent requirement BIOL 1101) | 1 |
| GEEN 1101 GEEN 1201 GEEN 2311 | English I (One of them according to the results of the College Board) | 3 |
| GEIC 1010 | Information and Computer Technologies | 3 |
| GEMA 1200 | Fundamentals of Algebra | 3 |
| GESP 1101 | Literature and Communication: Narrative and Poetry | 3 |
| TOTAL | | 16 |

FIRST YEAR – SECOND SEMESTER

| CODE | COURSE | CRS. |
|-------------------------------------|-----------------------------------------------------------------------------------------|-----------|
| BIOL 1102 | General Biology II (BIOL requirement 1101 and 1103) | 3 |
| BIOL 1104 | Biology Skills Laboratory II (BIOL 1101 and BIOL 1103 concurrent BIOL 1102 requirement) | 1 |
| CHEM 1111 | General Chemistry I (GEMA 1200 requirement) | 4 |
| GEEN 1102 GEEN 1202 GEEN 2312 | English II (One of them according to the results of the College Board) | 3 |
| GESP 1102 | Literature and Communication: Essay and Theatre | 3 |
| TOTAL | | 14 |

SECOND YEAR – FIRST SEMESTER

| CODE | COURSE | CRS. |
|-------------------------------------|-------------------------------------------------------------------------|-------------|
| BIOL 3010 | Genetics (BIOL 1102 and GEMA 1200 requirement) | 3 |
| CHEM 2212 | General Chemistry II (requirement MATH 1500 or MATH 1511 and CHEM 1111) | 4 |
| GEEN 1103 GEEN 1203 GEEN 2313 | English III (One of them according to the results of the College Board) | 3 |
| GESP 2203 | Literature and World view | 3 |
| MATH 1500 | Pre-calculus (GEMA 1200 requirement) | 5 |
| TOTAL | | 16 |

SECOND YEAR – SECOND SEMESTER

| CODE | COURSE | CRS. |
|--------------------------------|-----------------------------------------------------------------------|-------------|
| BIOL 3105 | General Microbiology (BIOL 1102, BIOL 1104 and CHEM 1111 requirement) | 4 |
| CHEM 2221 | Organic Chemistry I (requirement CHEM 2212) | 4 |
| Prescribed distributive course | (Select a course from those prescribed Microbiology) | 3/4 |
| GECF 1010 | Introduction to the Christian Faith | 3 |
| TOTAL | | 14/15 |

THIRD YEAR – FIRST SEMESTER

| CODE | COURSE | CRS. |
|--------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|
| CHEM 2222 | Organic Chemistry II (requirement CHEM 2221) | 4 |
| GEHS 3020 GEHS 3050 GEHS 4020 GEHS 4030 | Global Society Human Formation, Society and Culture Ancient and Medieval Western Civilization Modern and Contemporary Western Civilization (Select one of four courses) | 3 |
| GEPE 3010 GEPE 3020 GEPE 3030 | Art Appreciation Music Appreciation Theatre Appreciation (Select one of three courses) | 3 |
| MICR 3211 | Microbial Physiology (BIOL 3105 requirement) | 3 |
| PHYS 3001 | General Physics I (MATH 1500 or MATH 1512 requirement) | 4 |
| TOTAL | | 17 |

THIRD YEAR – SECOND SEMESTER

| CODE | COURSE | CRS. |
|--------------|--------------------------------------------|-------------|
| BIOL 3405 | Immunology (BIOL 3105 requirement) | 3 |
| GEEC 2000 | Entrepreneurial Culture | 3 |
| GEHP 3000 | Integral Health and Quality of Life | 3 |
| MICR 4010 | Microbial Ecology (MICR 3211 requirement) | 3 |
| PHYS 3002 | General Physics II (PHYS 3001 requirement) | 4 |
| TOTAL | | 16 |

FOURTH YEAR – FIRST SEMESTER

| CODE | COURSE | CRS. |
|--------------------------------|----------------------------------------------------------------|--------------|
| BIOL 4305 | Medical Microbiology (BIOL 3105 requirement) | 3 |
| BIOL 4433 | Industrial Microbiology (BIOL 3105 and CHEM 2212 requirement) | 3 |
| Prescribed distributive course | (Select a course from those prescribed Microbiology) | 3/4 |
| GEHS 2010 | Historical Process of Contemporary Puerto Rico | 3 |
| MICR 4505 | Microbiological Application Techniques (MICR 4010 requirement) | 2 |
| TOTAL | | 14/15 |

FOURTH YEAR – SECOND SEMESTER

| CODE | COURSE | CRS. |
|-----------------|---------------------------------------------------------------------------------------|--------------|
| BIOL 4303 | Mycology | 3 |
| BIOL 4604 | Cellular and Molecular Biology (BIOL 3010 and CHEM 2221 requirement) | 3 |
| CHEM 4220 | Biochemistry (requirement CHEM 2222 and CHEM 3320 (Select one of the two courses)) | 4 |
| ELECTIVE COURSE | Elective Course (Choose a course) | 3 |
| GEPE 4040 | Ethics and Social Responsibility | 3 |
| MICR 4955 | Integrative Seminar in Microbiology | 1 |
| TOTAL | | 13/14 |

Requirements for the bachelor

| DEGREE REQUIREMENTS | CREDITS |
|--------------------------------------|----------------|
| General Education Requirements | 45 |
| Concentration requirements | 68 – 69 |
| Prescribed distributive requirements | 6 – 9 |
| Elective courses | 3 |
| TOTAL | 122-126 |

CHEM 4220: The student who takes the CHEM 4220 course as a concentration requirement will take the CHEM 3320 course as the prescribed distribution.

PRESCRIBED DISTRIBUTIONS

| COURSE NAME | CREDITS |
|----------------------------------------|----------------|
| BIOL 2153 Biostatistics | 3 |
| BIOL 3106 Human Anatomy and Physiology | 4 |
| BIOL 3213 Parasitology | 3 |
| BIOL 3309 Food Microbiology | 3 |
| BIOL 4306 Virology | 3 |
| CHEM 3320 Analytical Chemistry | 4 |
| MATH 2251 Calculus I | 5 |
| MICR 4910 Practice | 2 |