Bachelor of Science 2022-23

Biomedical Sciences Major Code BI11 CIP Code: 260102 Cr Hrs General Education CORE 42 Requirements 42* 32 6 Area 1A Social & Behavioral Sciences 3 Area 1B **Civics Engagement** 6 Area 2A Written Communication 3 Area 2B Oral Communication Area 3A Natural Science Non-Lab (BIO 108 or CHEM 140) Area 3B Natural science With Lab (PHYS 160) Mathematics (MATH 140 or 150) Area 4 Area 5A 6 Humanities 3 Area 5B Fine Arts 3 Area 5C **Global Competencies** 2 Area 5D Health and Wellness 1 UE 100 First Year Experience** 70 **Required Courses - Biomedical Sciences Core BIO 108** Principles of Biology I 3 1 **BIO 109** Principles of Biology I Lab 4 BIO 111 Principles of Biology II BIO 201 Human Anatomy OR BIO 331 Comparative Vertebrate Anatomy 5 Molecular Cell Biology 4 BIO 210 5 **BIO 231** General and Medical Microbiology 4 **BIO 301** Human Physiology BIO 305 4 Genetics 3 **BIO 389** Fund. Of Experimental Design & Statistics 1 **BIO 400** Biology Capstone MATH 140 Alegbra & Trig OR MATH 150 Calculus w/Analytic Geom 5 3 **CHEM 140** General Chemistry I 2 **CHEM 141** General Chemistry I Lab 5 **CHEM 142** General Chemistry II 5 **CHEM 301** Organic Chemistry I 5 **CHEM 302** Organic Chemistry II 3 **CHEM 350 Biochemistry I** Elementary College Physics I With Lab 4 PHYS 160 4 **PHYS 162** Elementary College Physics II BIO Electives see below for options (200 level or above) 11 See list for applicable courses Electives 6 **Total Hours** Must include at 39 upper division (300-400) hrs 120

*Required courses in Biology, Chemistry/Physics and Math satisfy Gen Ed Core 42 Areas 3A,3B,4 (10 hours) **Degree Requirement H (UE 100), may also be met by HNRS 101 (2 credit hours).

@ MATH 130 plus MATH 135 equals MATH 140

| Applicable courses for BIO Electives | | |
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| BIO 201 Human | Anatomy OR BIO 331 Comparative Vertebrate Anatomy | 5 |
| BIO 220 | CURE (Classroom-based Undergraduate Research Experience | 1-5 |
| BIO 240 | Radiation Biology | 3 |
| BIO 297 | Independent Research in Biology | 1-3 |
| BIO 298 | Topics in Biology | 1-5 |
| BIO 299 | Independent Study in Biology | 1-5 |
| BIO 308 | Pathophysiology | 3 |
| BIO 350 | Techniques in Microbiology | 2 |
| BIO 352 | Biomes | 1-4 |
| BIO 361 | Parasitology | 4 |
| BIO 362 | Virology | 3 |
| BIO 370 | Environmental Health and Safety | 3 |
| BIO 375 | Disease Vector Control | 1 |
| BIO 380 | Epidemiology | 3 |
| BIO 390 | Research and Statistical Methods in Biology | 3 |
| BIO 412 | Mammalogy | 4 |
| BIO 415 | Herpetology | 4 |
| BIO 420 | Advanced CURE (Classroom-Based Undergraduate Research Experience |) 1-5 |
| BIO 433 | Histology | 4 |
| BIO 442 | Pathogenic Bacteriology | 5 |
| BIO 445 | Reproductive Physiology | 3 |
| BIO 455 | Laboratory Assistant Practicum | 1-2 |
| BIO 456 | Immunology | 4 |
| BIO 464 | Advanced Cell Biology | 3 |
| BIO 475 | Advanced Human Dissection | 4 |
| BIO 491 | Internship in Biology | 0-4 |
| BIO 492 | Service Learning in Biology | 1-3 |
| BIO 495 | Roots of Science | 2-3 |
| BIO 497 | Advanced Independent Research in Biology | 1-3 |
| BIO 498 | Advanced Topics in Biology | 1-5 |
| BIO 499 | Advanced Independent Study in Biology | 1-5 |
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