**Environmental Health Track, Microbiology Option 5/14/18**

**Freshman Year Credits**

CHMY 141 – College Chemistry I (F) 4

WRIT101W- College Writing I

Or test out of this requirement 3

M161Q Survey of Calculus (F, S, Su)

Or M171Q Calculus I ((F, S, Su) 4

CORE or Elective 4-5

BIOB 160- Principals of Living Systems (F, S)

or BIOB 260- Cellular and Molecular Biology (F, S) 4

CHMY 143- College Chemistry II (F, S, SU) 4

CULA 105 – Food Safety & Sanitation (F) 2-3

or BIOM 250 Microbiology for Health Sciences: Infectious Diseases (F, S)

CORE (University Seminar) 3

CORE or Elective 2-3

**Year Total: 30-32**

**Sophomore Year Credits**

BIOM210RN-Principals of Environmental Health Science (F) 3

CHMY 211- Organic Chemistry (F, S)

Or CHMY 321- Organic Chemistry I (F, Su) 4-5

PHSX 205 – College Physics I (F, S, Su) 4

ERTH 101N- Earth System Sciences (F, S, Su) 4

KIN 221- Health Anatomy and Physiology (F, Su)

or BIOH 211 Anatomy & Physiology II (F, S)

or ANSC 265/266 Anatomy & Physiology of Domestic Animals (S) 3-4

HDFS 271- Statistical Measures of Well Being(S)

or BIOB 318- Biometry (S)

or STAT 216- Intro to Stats (F, S, Su) 3

GPHY 284- Intro to GIS (F, S) 3

CORE and/or Electives 5-6

**Year Total: 30-32**

**Junior Year Credits**

BIOM 360- General Microbiology (F, S) 5

MBEH 498- Environmental Health Internship 3

MBEH (TBD) HAZWOPER (Hazardous Waste Operations & Emergency Response) 2

NRSM 240- Natural Resource Ecology (F) 3

or NRSM 101- Natural Resource Conservation (F)

or BIOE 370- Ecology (F, S)

or BIOM 415- Microbial Diversity, Ecology, Evolution (S, even years)

CORE and/or Electives 2

EENV 447- Hazardous Waste Management (S) 3

CORE and/or Electives 8

**Year Total: 30**

**Senior Year Credits**

**BIOM 494 Seminar (Environmental Health Management/Capstone) 1**CHTH 440 Principals of Epidemiology (F) 3

ENSC 407- Environmental Risk Assessment (F, alternate years) 3

CORE and/or Electives 9

**BIOM 494 Seminar (Capstone)**

**Or MBEH 490R Research (Capstone) 1-3**

BIOM 425- Toxicology (S) 3

CORE and/or Electives 9-11

Year Total: 30

**Total Program Credits: 120**

**Electives (12 cr. or more from this list. A minimum of 120 credits is required for graduation, with ≥42 course credits at 300 level or above)**

**Recommended electives**

CULA 105 – Food Safety & Sanitation (F) 2-3

or BIOM 250 Microbiology for Health Sciences: Infectious Diseases (F, S) (whichever course was not taken above)

BIOM 460 Infectious Diseases Ecology and Spillover (F) 3

LS 191  Introduction to Global Health (F) 3

ENSC 245 Soils (F) 3

ARCH 231 Issues in Sustainability 3

WRIT 221 Intermediate Tech Writing (F, S)

or WRIT 326 Advanced Writing (F) 3

**Electives: Other**

MBEH 291 Special Topics in Environmental Health 1-4

MBEH 475 Field Project in Environmental Health 1-4

MBEH 490R Undergraduate Research 1-6

MBEH 492 Independent Study 1-3

MBEH 4XX Water and Wastewater Microbiology (planned) 3

MBEH 4XX Occupational Health and Safety (planned) 3

BCH 380 Biochemistry 5

BIOH201 Human Anatomy & Physiology I (F) 5

BIOM 400 Medical Microbiology (S) 3

BIOB 410 Immunology 3

BIOM 405 Host Associated Microbiomes 3

BIOM 410 Microbial Genetics 3

BIOM 435 Virology 3

BIOM 430 Applied & Environmental Microbiology 4

BIOM 450 Microbial Physiology 3 BIOM 452 Soil and Environmental Microbiology (S) 3

BIOO 262 IN Intro to Entomology 3

CHEM323 Organic Chemistry II 4

ENSC 272 Water Resources (F) 3

ENSC 353 Environmental Biogeochemistry 3 ENSC 444 Watershed Hydrology (F) 3

ENSC 460 Soil Remediation (S) 3

ENSC 461 Restoration Ecology 3 GPHY 357 GPS Fund/App Mapping (F)

GPHY 384 Advanced GIS and Spatial Analysis (F/S) 3

NASX 310 Native Cultures in North America or NASX 450 History of American Indians 3NASX 415 Native Food Systems 3NASX 476 American Indian Policy and Law 3NRSM 430 Natural Resource Law 3 NUTR 322 Food Service System Management (F) 3

STAT 217Q Intermediate Statistical Concepts 3