**Biology Major: Biology Secondary Education Concentration**

Foundation Courses (all courses are required) Course Name Semester Taken Grade

BIOL 200 (or BIOL 201 or BIOL 203): Introduction to Cellular Biology and Genetics Course taken. Enter semester. Grade.

BIOL 200L: Introduction to Cellular Biology and Genetics Lab Course taken. Enter semester. Grade.

BIOL 206 (or BIOL 202): Introduction to Ecology and Evolution Course taken. Enter semester. Grade.

BIOL 206L: Introduction to Ecology and Evolution Lab Course taken. Enter semester. Grade.

BIOL 204: Educational and Career Planning for the Biologist BIOL 204 Enter semester. Grade.

BIOL 309: Genetics BIOL 309 Enter semester. Grade.

Breadth Courses

Both required:

BIOL 205: Botany BIOL 205 Enter semester. Grade.

BIOL 207: Zoology BIOL 207 Enter semester. Grade.

Select one of the following two options:

BIOL 408: Cell Biology Course taken. Enter semester. Grade.

BIOL 409: Molecular Biology

Select one of the following sets of courses: BIOL 325: Animal Physiology\* Course taken. Enter semester. Grade.

BIOL 342 & BIOL 343: Human Anatomy & Physiology for Biol Majors I & II Course taken. Enter semester. Grade.

Concentration Electives

Select one elective from another concentration:

Must be approved by advisor. Elective course taken. Enter semester. Grade.

Ancillary Courses

Complete all of the following courses:

CHEM 131: General Chemistry I CHEM 131 Enter semester. Grade.

CHEM 131L: General Chemistry I Lab CHEM 131L Enter semester. Grade. CHEM 132: General Chemistry II CHEM 132 Enter semester. Grade.

CHEM 132L: General Chemistry II Lab CHEM 132L Enter semester. Grade.

Select one of the following options:

CHEM 330: Essentials of Organic Chemistry Course taken. Enter semester. Grade.

CHEM 331 & CHEM 332: Organic Chemistry I and II Course taken. Enter semester. Grade.

Select one of the following sets of courses:

PHYS 211: Non-Calculus Based Course taken. Enter semester. Grade.

PHYS 241: Calculus Based

Select one of the following courses:

MATH 211: Calculus for Applications Course taken. Enter semester. Grade.

MATH 231: Basis Statistics

MATH 237: Elementary Biostatistics

MATH 273: Calculus I

Physical Science Elective

Select one of the following courses:

ASTR 161: The Sky and the Solar System Course taken. Enter semester. Grade. GEOL 121: Physical Geology

GEOL 123: Historical Geology

GEOG 377: Meteorology

Science Education Methods

Required course:

SCIE 380: Teaching Science in the Secondary Schools SCIE 380 Enter semester. Grade.

UTeach Courses

Required courses:

SEMS 110: Introduction to STEM Teaching I Course taken. Enter semester. Grade.

AND SEMS 120: Introduction to STEM Teaching II Course taken. Enter semester. Grade.

OR SEMS 130: Introduction to STEM Teaching Combined

SEMS 230: Knowing and Learning SEMS 230 Enter semester. Grade.

SEMS 240: Classroom Interactions SEMS 240 Enter semester. Grade.

SEMS 250: Perspectives in Science and Mathematics SEMS 250 Enter semester. Grade.

SEMS 370: Project-based Instruction SEMS 370 Enter semester. Grade.

SCED 460: Using Reading and Writing in the Secondary Schools SCED 460 Enter semester. Grade.

SCED 461: Teaching Reading in the Secondary Content Areas SCED 461 Enter semester. Grade.

SEMS 498: Internship in Mathematics and Science Secondary Education SEMS 498 Enter semester. Grade.

SCIE 393: Internship in Secondary Education – Science SCIE 393 Enter semester. Grade.

SCIE 430: Seminar in Student Teaching – Science SCIE 430 Enter semester. Grade.

Core courses:

Cores 3,5,7,8 satisfied by above courses

1: Towson Seminar Course taken. Enter semester. Grade.

2: English Composition Course taken. Enter semester. Grade.

4: Creativity Course taken. Enter semester. Grade.

6: Social & Behavioral Science Course taken. Enter semester. Grade.

9: Advanced Writing Course taken. Enter semester. Grade.

10: Metropolitan Perspectives Course taken. Enter semester. Grade.

11: US as a Nation Course taken. Enter semester. Grade.

12: Global Perspectives Course taken. Enter semester. Grade.

13: Diversity & Difference Course taken. Enter semester. Grade.

14: Ethical Issues & Perspectives Course taken. Enter semester. Grade.