B.S. CHEMISTRY Major Requirements

Standard Track (ACS Certified) *(no minor required)*

Name: _____

REQUIRED CHEMISTRY (48 hrs)* (Prerequisites in parentheses)

_____CHEM 1450 College Chemistry I #

_____CHEM 1451 College Chemistry II (CHEM 1450)

_____CHEM 2401 Organic Chemistry I (CHEM 1451)

_____CHEM 3411 Organic Chemistry II (CHEM 2401)

_____CHEM 3211 Organic Spectroscopy (CHEM 2401;pre or co-req CHEM 3411)

_____CHEM 3520 Quantitative Analysis (CHEM 1451)

_____CHEM 4450 Physical Chemistry I (CHEM 1451, PHYS 1442, MATH 1497)

_____CHEM 4460 Physical Chemistry II (CHEM 1451, PHYS 1442, MATH 1497)

_____CHEM 4451 Advanced Analytical Chemistry (CHEM 3520)

_____CHEM 4380 Advanced Inorganic Chemistry (CHEM 4450)

_____CHEM 3150 Advanced Inorganic Laboratory (CHEM 3441,3520;co-req CHEM4380)

_____CHEM 4320 Biochemistry I (CHEM 3411 and BIOL 1440)

_____One of the Following:

___ CHEM 3360 Intermediate Organic Chemistry (CHEM 1451)

___ CHEM 4335 Biochemistry II (CHEM 4320)

___ CHEM 4351 Environmental Chemistry (CHEM 3411 and CHEM 3520)

___ CHEM 4385 Topics in Advanced Chemistry (CHEM 4460)

_____CHEM 4112 Seminar: Capstone (pre or co-req CHEM 4450 or 4460) [UD UCA Core: Z]

_____CHEM 4V01 Research (minimum of 2 credit hours)

REQUIRED BIOLOGY (4 hrs)

_____BIOL 1440 Principals of Biology I ^

REQUIRED PHYSICS (8 hrs)

_____PHYS 1441 University Physics I (MATH 1496)

_____PHYS 1442 University Physics II
(PHYS 1441; pre or co-req MATH 1497)

REQUIRED MATHEMATICS (15 hrs)

_____MATH 1496 Calculus I (MATH 1390,1392 or MATH 1580)

_____MATH 1497 Calculus II (MATH 1496)

_____MATH 2471 Calculus III (MATH 1497)

_____MATH 3331 Differential Equations (MATH 1497)

Graduation Requirements* for *the B.S. Degree in Chemistry include • successful completion of a minimum of 120 hours, which must include 40 hours of upper division courses (3000-4000 level), • General Education (LD Core) requirements, and • UD Core requirements.

This check sheet is to aid students in class planning, but is not meant to replace any eight semester plan or the undergraduate bulletin. For any questions, check the graduation requirements detailed in the Undergraduate Bulletin.

Note: The UCA STEMteach program is now the path to licensure in science education at the undergraduate level. Alternatively, students may complete a Master of Arts in Teaching (MAT) graduate degree after completion of a BS in Chemistry. Contact UCA's Department of Teaching and Learning for more information.

* A "C" or better grade is required for advancement to subsequent courses.

\# Prerequisite: ACT mathematics score of at least 21 or corequisite/prerequisite of MATH 1390.

^ Prerequisites: High school chemistry or CHEM 1301 (or above) and a composite ACT score of 21 or higher OR BIOL 1400 (or 1401 or 1402) and CHEM 1301 (or above) both with a grade of C or higher.

Revised: Spring 2019