B.S. Chemistry

with a Minor (required)

This checksheet 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.

Name: _____

REQUIRED CHEMISTRY (38 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/co-req CHEM 3411)
_____CHEM 3360 Inter. Inorganic Chem. (Fall only) (CHEM 1451)
OR ____CHEM 4380 Adv. Inorganic (Spr. only) (CHEM 4450)
_____CHEM 3520 Quantitative Analysis (CHEM 1451)
_____CHEM 4450 Physical Chemistry I (Fall only)
(CHEM 1451, PHYS 1442, MATH 1497)
_____CHEM 4460 Physical Chemistry II (Spring only)
(CHEM 1451, PHYS 1442, MATH 1497)
_____CHEM 4320 Biochemistry I (CHEM 3411 and BIOL 1440)
_____CHEM 4112 Seminar: Capstone (Spring only)
(pre or co-req CHEM 4450 or 4460) [UD UCA Core: Z]

Recommended: ____CHEM 4V01 Research (2 credit hours)

REQUIRED BIOLOGY (4 hrs)

_____BIOL 1440 Principles 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 (12 hrs)

_____MATH 1496 Calculus I (MATH 1390,1392 or MATH 1580)
_____MATH 1497 Calculus II (MATH 1496)
_____MATH 2471 Calculus III (MATH 1497)

The Minors shown below (STEMteach or Math) are only <u>two</u> examples of <u>many</u> different choices available to students. Any Minor can be used to satisfy the requirements of the Chemistry B.S. with Minor.

Requirements for other Minors (e.g. Psychology, Biology, Sociology, Philosophy, etc.) are detailed in the UCA Undergraduate Bulletin.

REQUIRED for <u>STEMteach</u> <u>MINOR</u> (26 hours)

_____STEM 1100 Step 1: Inquiry Approaches to Teaching
_____STEM 1101 Step 2: Inquiry-Based Lsn Design (STEM 1100)
_____STEM 1301 Knowing and Learning (STEM 1100)
_____STEM 2301 Classroom Interactions
(STEM 1301 & Admission to Teacher Education)
_____STEM 3300 Project-Based Instruction
(STEM 2301 and Admission to Teacher Education)
_____STEM 3310 Research Methods in Math and Science
_____STEM 4600 Apprentice Teaching [UD UCA Core: Z]
_____STEM 4605 Apprentice Teaching Seminar
(STEM 4600 and 4605 must be taken concurrently)

REQUIRED for <u>Mathematics</u> <u>MINOR (17 hours)</u>

(only 5 additional hours beyond Chem.)

__X__MATH 1496 Calculus I *(already in Chem. Major)*
__X__MATH 1497 Calculus II *(already in Chem. Major)*
__X__MATH Elective (2471 Cal III is common)
_____ MATH Elective (3331 ODE is common, UD Core: C)
_____ MATH Elective (3320 Linear alg. is common, UD Core: I)

* 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

Graduation Requirements for B.S. Degrees in Chemistry include completion (D or better)

- ◊ 120 total credit hours (D or better),
- ◊ 40 hours of upper division courses (3000-4000 level),
- ◊ Lower division core requirements,
- ◊ Upper division core requirements (I,C, D, R, Z—CHEM 4112)

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.

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