2021 - 2022 Certificate Map
Biomedical Research

School/College: New College of Interdisciplinary Arts and Sciences
Location: West campus

Program Requirements

The certificate in biomedical research requires a minimum of 15 credit hours (at least 12 must be upper division). Twelve credit hours must be taken at ASU. Nine credit hours must be counted toward the certificate alone and may not be shared with a student's major requirements. Only courses in which a student received a grade of "C" (2.00 on a 4.00 scale) or higher may be used to meet certificate requirements.

Core Requirement -- 3 credit hours

STP 280: Probability and Statistics for Researchers (CS) (3)

Upper-Division Elective Requirements -- 8 credit hours

Complete at least two of the lecture/lab combinations below.

BCH 371: Modern Concepts in Biochemistry AND BCH 372: Modern Concepts in Biochemistry Laboratory (4)
BIO 353: Cell Biology AND BIO 354: Cell Biology Laboratory (4)
BIO 360: Animal Physiology AND LSC 359: Animal Physiology Laboratory (4)
BIO 443: Applied Molecular Genetics and Genomics AND LSC 447: Molecular Genetics Laboratory (4)
MIC 443: The Microbial Universe AND MIC 444: The Microbial Universe Laboratory (4)

Other Certificate Requirements (choose one option below) -- 4 credit hours

Option A -- 4 credit hours

If choosing Option A, complete three credit hours of STEM Research Fundamentals (any subject area) and one credit hour of Individualized Instruction or Supervised Research (any subject area).

ENV 388: STEM Research Fundamentals (L) AND ENV 499: Individualized Instruction (4)
FOR 388: STEM Research Fundamentals (L) AND FOR 499: Individualized Instruction (4)
LSC 388: STEM Research Fundamentals (L) AND LSC 499: Individualized Instruction (4)
PLB 388: STEM Research Fundamentals (L) AND PLB 499: Individualized Instruction (4)
PTX 388: STEM Research Fundamentals (L) AND PTX 499: Individualized Instruction (4)
Option B -- 4 credit hours

If choosing Option B, take two credit hours of Individualized Instruction or Supervised Research (any subject area) in each of two consecutive semesters.

ACO 399: Supervised Research or ACO 499: Individualized Instruction (4)
ENV 499: Individualized Instruction (4)
FOR 499: Individualized Instruction (4)
LSC 499: Individualized Instruction (4)
MAT 499: Individualized Instruction (4)
PLB 499: Individualized Instruction (4)
PTX 499: Individualized Instruction (4)
STP 499: Individualized Instruction (4)

Depending on a student's undergraduate program of study, prerequisite courses may be needed in order to complete the requirements of this certificate.