

BACHELOR OF SCIENCE IN BIOCHEMISTRY (BS BCHM) COLLEGE OF AGRICULTURE & LIFE SCIENCES GRADUATION CHECK LIST FOR THOSE GRADUATING IN CALENDAR YEAR 2021

| Student Name: | |
|---------------|--|
| | |

Except where noted, entries must be completed for each line.

A. Math and Natural Sciences (75-78 semester credits)

| BCHM 1014 | Introduction to Biochemistry | | | |
|-----------------------------|---|--------|-------|--|
| BCHM 2114 | Biochemical Calculations | | | |
| BCHM 4115 4116 | General Biochemistry | (4) | (3) | |
| BCHM 4124 | Laboratory Problems in Biochemistry | | (6) | |
| BIOL 1105 1106 | Principles of Biology | (3) | (3) | |
| BIOL 1115 1116 | Principles of Biology Laboratory | (1) | (1) | |
| BIOL 2004 | Genetics | | (3) | |
| BIOL 2604 | General Microbiology | | (3) | |
| BIOL 2614 | General Microbiology Laboratory | | (2) | |
| CHEM 1035 1036 | General Chemistry | (3) | (3) | |
| <u>or</u> | | | _ 、 / | |
| CHEM 1055 1056 | General Chemistry for Majors | (4) | (4) | |
| and | | | _ , | |
| CHEM 1045 1046 | General Chemistry Laboratory | (1) | (1) | |
| <u>or</u> | | | | |
| CHEM 1065 1066 | General Chemistry Laboratory for Majors | (1) | (1) | |
| | | | | |
| ^a CHEM 2565 2566 | Principles of Organic Chemistry | (3) | (3) | |
| <u>and</u> | | | | |
| CHEM 2545 2546 | Organic Chemistry Laboratory | (1) | (1) | |
| <u>or</u> | | | | |
| CHEM 2535 2536 | Organic Chemistry | (3) | (3) | |
| <u>and</u> | | | | |
| CHEM 2545 2546 | Organic Chemistry Laboratory | (1) | (1) | |
| | | | | |
| CHEM 2114 | Analytical Chemistry | | (3) | |
| and | | | | |
| CHEM 2124 | Analytical Chemistry Laboratory | | (1) | |
| <u>or</u> | | | | |
| CHEM 2154 | Analytical Chemistry for Chemistry Majors | | (4) | |
| and | | | | |
| CHEM 2164 | Analytical Chemistry Laboratory for Chemistry M | Majors | (1) | |
| house to detail | District Classic | /=1 | | |
| ^b CHEM 3615 3616 | Physical Chemistry | (3) | (3) | |
| | | | | |



| or CHEM 4615 4616 | | Physical Chemistry for the Life Sciences | (3) | (3) |
|--|-----------|--|------------|--------|
| <u>or</u> CHEM 4615 | | Physical Chemistry for the Life Sciences | | (3) |
| and BCHM 5024 or BCHM 4354 | | Computational Biochemistry and Bioinformatics Biochemical Communication | 1 | (3) |
| cMATH 1025 1026 | | Elementary Calculus | (3) | _(3) |
| <u>and</u> MATH 2024 <u>or</u> STAT 3615 | | Intermediate Calculus Biological Statistics | | (3) |
| ^b MATH 1225 1226 | <u>or</u> | Calculus of a Single Variable | (4) | _(4) |
| <u>and</u> MATH 2024 <u>or</u> STAT 3615 | | Intermediate Calculus Biological Statistics | | (3) |
| PHYS 2205 2206 PHYS 2215 2216 | | General Physics General Physics Laboratory | (3) (1) | (3)(1) |
| or dPHYS 2305 2306 | | Foundations of Physics I | (4) | _(4) |

^aCHEM 2565, 2566 sequence is recommended.

B. Curriculum for Liberal Education (16-22 semester credits)

| ENGL 1105 1106 | First-Year Writing | (3) | _(3) |
|----------------------------|-------------------------|-----|------|
| or ENGL H1204 | Honors Freshman English | | (3) |
| Ideas, Cultural Traditions | s and Values (Area 2) | (3) | _(3) |
| Society and Human Beha | avior (Area 3) | (3) | (3) |

Scientific Reasoning and Discovery (Area 4) requirements (6 credits minimum) are met by the requirements of the major. The required 1000-level BIOL classes, CHEM 1035/6, CHEM 1045/6, and the 2000-level PHYS classes shown in Section A (above) are all approved Area 4 classes.

^bRequires PHYS 2306 (MIN grade of P), MATH 2204 (MIN grade of P) or MATH 2204H (MIN grade of P) or MATH 2224 (MIN grade of P).

^cThose considering engineering options need to take the MATH 1225, 1226 sequence, while those with a Life Science emphasis should take MATH 1025, 1026.

^dRequires MATH 1206 or MATH 1206H or MATH 1226 (MIN grade of P).



Quantitative and Symbolic Reasoning (Area 5) requirements (6 credits minimum) are met by the requirements of the major. MATH 1015, 1016, 1025, 1026, 1205, 1206, 1225, 1226, 2015, 2016 and STAT 3615 are approved Area 5 classes.

| Creativity and Aesthetic Experience (Area 6) | (1) |
|--|-----|
| Critical Issues in a Global Context (Area 7)* | (3) |
| *Area 7 course may also be used to fulfill part of Area 2 or Area 3 requirement. | |

C. Unrestricted electives (18 – 29+ semester credits)

| Course | Cr | Course | Cr | Course | Cr | Course | Cr |
|--------|-----|--------|-----|--------|-----|--------|-----|
| | (3) | | (3) | | (3) | | (3) |
| | (3) | | (3) | | (3) | | (3) |
| | (3) | | (3) | | | | |
| | (2) | | (2) | | | | |
| | (1) | | (1) | 4 | | | |

D. Foreign Language Requirement

Students who did not successfully complete at least two units of a single foreign, classical, or sign language during high school must successfully complete six semester hours of a single foreign, classical, or sign language at the college level. Courses taken to meet this requirement do not count toward hours required for graduation. Please see the Undergraduate Catalog for details.

Satisfactory Progress toward Degree

- (1) After having attempted 36 semester credits (including transfer, advanced placement, advanced standing, credit by examination and course withdrawal hours), students must have passed at least 12 semester credits of the Curriculum for Liberal Education.
- (2) After having attempted 72 semester credits (including transfer, advanced placement, advanced standing, credit by examination and course withdrawal hours), students must have passed at least 24 semester credits of the Curriculum for Liberal Education.
- (3) After having attempted 96 semester credits (including transfer, advanced placement, advanced standing, credit by examination and course withdrawal hours), students:
 - (a) must have an in-major grade point average of 2.0 or greater and

(b) should have completed: BCHM 2114, BIOL 1105, 1106; BIOL 1115, 1116; BIOL 2004; BIOL 2604; BIOL 2614; CHEM 1035, 1036 or 1055,1056; CHEM 1045, 1046 or 1065, 1066; CHEM 2565, 2566 or 2535, 2536; CHEM 2545, 2546; PHYS 2205, 2206; PHYS 2215, 2216 or 2305, 2306.

Courses used to calculate in-major GPA:

Students must maintain a minimum 2.0 GPA and earn a grade of C- or better in each of the following courses:

BIOL: 1105/1106, 1115/1116, 2004, 2604, 2614.

BCHM: 2114, 4115, 4116, 4124.

CHEM: 1035/1036 (or 1055/1056) 1045/1046 (or 1065/1066), 2114/2124 (or

2154/2164), 2535/2536 (or 2565/2566), 2545/2546, 4615/4616 (or 3615/3616).

OTHER:

- Students must earn a C- or better in each of the required courses in biochemistry, biology and chemistry. Students earning a grade less than "C-" in BCHM 4115 must have permission of laboratory instructor to enroll or remain enrolled in BCHM 4124.
- There are no hidden prerequisites for the major courses.
- A minimum overall GPA of 2.0 out of 4.0 is required for graduation.
- Hours required for graduation: 120 semester hours