

#### KEAN UNIVERSITY FOUR YEAR ACADEMIC PLAN

# **BACHELOR OF SCIENCE IN BIOLOGY, CELL & MOLECULAR OPTION (70302)**

Program Notes:

- All options in the B.S biology major require a minimal cumulative GPA of 3.0 to remain in the major as well as for graduation.
- Actual course sequence will vary by student/program and is based upon course availability
- Some advanced courses in the major are offered only on a rotating basis and may vary by term offered.
- Major elective & free electives and their availability vary according to registration demand and faculty availability. Selections are approved thru the advisement process.
- Individual time to student's completion of graduation requirements will vary according to successful completion of prerequisites and other courses. This four year plan is for guidance purposes only.
- The semesters shown are Fall/Spring only. Some students may opt for intersession coursework (summer, etc.).

Name: \_\_\_\_\_

Student ID:

## FRESHMAN YEAR 1

| Fall Semester Yr-1                      |    | Spring Semester Yr-1                |    |
|---|----|-------------------------------------|----|
| ENG 1030 College Composition            | 3  | COMM 1402 Speech Communication      | 3  |
| MATH 1054 Precalculus                   | 3  | MATH 1016 Statistics (BIO Sections) | 3  |
| GE 1000 Transition to Kean              | 1  | MATH 2415 Calculus I                | 4  |
| BIO 1300 General Biology I <sup>1</sup> | 4  | BIO 1400 General Biology II         | 4  |
| CHEM 1083 General Chemistry I           | 4  | CHEM 1084 General Chemistry II      | 4  |
| HIST 1062 Worlds of History             | 3  |                                     |    |
| Total Credits                           | 18 | Total Credits                       | 18 |

### **SOPHOMORE YEAR 2**

| Fall Semester Yr-2                    |    | Spring Semester Yr-2                   |    |
|---------------------------------------|----|--|----|
| PHYS 2091 General Physics I           | 4  | PHYS 2092 General Physics II           | 4  |
| GE 2024 Research & Technology         | 3  | ENG 2403 World Literature              | 3  |
| CHEM 2581 Organic Chemistry I Lecture | 3  | CHEM 2582 Organic Chemistry II Lecture | 3  |
| CHEM 2583 Organic Chemistry I Lab     | 2  | CHEM 2584 Organic Chemistry II Lab     | 2  |
| BIO 3305 Microbiology                 | 4  | BIO 3709 Genetics                      | 4  |
| Total Credits                         | 16 | Total Credits                          | 16 |

| JUNIOR YEAR 3                       |       |   |       |  |
|-------------------------------------|-------|---|-------|--|
| Fall Semester Yr-3                  |       | Spring Semester Yr-3                    |       |  |
| BIO 4015 Essentials of Biochemistry | 4     | BIO 3XXX or 4XXX Major Elective         | 3-4   |  |
| BIO 4315 Immunology                 | 4     | GE Approved Humanities                  | 3     |  |
| BIO 3XXX or 4XXX Major Elective     | 4     | Free elective                           | 3     |  |
| Free elective                       | 3     | Free elective                           | 3     |  |
| Total Credits                       | 15    | Total Credits                           | 12-13 |  |
| Fall Semester Yr-4                  | SENIO | R YEAR 4                                |       |  |
| Fail Semester 11-4                  |       | Spring Semester Yr-4                    |       |  |
| GE Approved Social Science          | 3     | BIO 4970 Seminar in Integrative Biology | 3     |  |
| BIO 3XXX or 4XXX Major Elective     | 3-4   | BIO 3XXX or 4XXX Major Elective         | 3-4   |  |
| BIO 3XXX or 4XXX Major Elective     | 3-4   | BIO 3XXX or 4XXX Major Elective         | 3-4   |  |
| Free elective                       | 3     | BIO 3XXX or 4XXX Major Elective         | 3-4   |  |
|                                     |       |   |       |  |

## TOTAL CREDITS REQUIRED FOR GRADUATION 124 S.H.

Footnote:

<sup>1</sup>If a student does not have the required co-requisite of MATH 1054, they are encouraged to substitute a <u>Free Elective</u> instead of BIO 1300 during their first semester.